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FOURTH ANNUAL REPORT

OF THE

Mine Inspector for Allegany and Garrett Counties

TO HIS EXCELLENCY

GOVERNOR EDWIN WARFIELD

1903/04

JAMES P. CARROLL, INSPECTOR

1905
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LETTER OF TRANSMITTAL.

MIDLAND, MD., April 30, 1904.

TO HIS EXCELLENCY, EDWIN WARFIELD,
Governor of Maryland.

SIR: I have the honor to submit herewith my fourth report as Mine Inspector for Allegany and Garrett counties.

This report embraces a description of the condition of the coal and fire-clay mines, as well as other matter which the law provides shall be included in the report.

As in my three previous reports, in this one the same general plan has been followed in the presentation of information.

There are employed in and around the coal mines: 4,015 miners; 1,454 drivers and laborers. Fire-clay mines: 113 miners, 98 drivers and laborers; which gives a total employed in and about the mines, exclusive of those employed in brick yards, 5,680.

The law is being generally obeyed and I am satisfied conditions in this region will compare favorably with any State or region in this country. There have been no serious differences between the employers and employees since my last report, although a reduction of 5 cents per ton in the price of mining went into effect April of this year.

It was confidently expected that work would be steadier than last year. These expectations have not been realized, particularly in Garrett county and the lower and western end of Georges Creek. There has been a steady improvement in the ventilation of the different mines, and while at times it does not come up to all the requirements of the law, at no time was any person in danger of being injured on this account. As I have noted in previous reports, there is no gas in any of the mines in this region, consequently an explosion has never occurred. The only trouble here is to furnish a sufficient quantity of air and keep "black damp" from where men work. This is at times somewhat difficult, especially where abandoned mines have been reopened or where new openings have been made to get coal that had been abandoned. The usual way to work these latter places is to drive a heading as close to the outcrop as possible, drive air-ways to the outside and drive rooms from the heading to where the coal had been taken out. When these rooms reach the falls, the openings always release a quantity of "black damp."

It is unnecessary to make any recommendations as to new laws or changes in the present, as another report will be issued before the next General Assembly meets.

JAMES P. CARROLL,
Inspector.

FOURTH ANNUAL REPORT

OF THE

Mine Inspector for Allegany and Garrett Counties

DESCRIPTION OF MINES.

CUMBERLAND BASIN COAL COMPANY.

John Maurice, Superintendent. Jenkins Daniels, Foreman.

Has two openings, known as the Stafford and McGlone Mines, situated near Barrellville, a station on the C. & P. R. R., and connected with this road by a branch which connects the company's mine at Wellersburg, Pa., with the same road.

The mines have been worked very little during the past year, very seldom having ten men employed. The company has made extensive improvements, having built several houses, a fine dump and tipple.

There is no fault to be found with conditions.

UNION MINING COMPANY.

FIRE-CLAY MINE.

Henry Shriver, Superintendent. John Sullivan, Foreman.

There are altogether five openings—the largest is four and three-eighths miles from Mount Savage, where the brick works are situated. A tramway three miles and an incline one and three-eighths miles in length connect the mines with the works. The largest opening is near the top of the incline and a short distance from the boundary between Allegany and Garrett counties.

There are but two of these openings in which more than ten men are employed.

The mines are well ventilated by a fan. I have heard at no time complaints from miners as to air except on the occasion of my last visit. The boiler house had been burned down and machinery which run the fan damaged some time previously. This, of course, was no fault of the management, who were doing all that could be done to have the damage repaired.

Roads in the upper opening are always muddy and wet, owing to the soft nature of the bottom. Everything that could be expected has been done to remedy this, but it is almost impossible to do any better. There is plenty of air circulating, as I found on previous visits. There are about one hundred men in the largest opening.

NEW YORK MINING COMPANY.

Union Mine No. 2.

Henry Shriver, Superintendent. John Sullivan, Foreman.

Situated near Allegany, on the C. & P. R. R., and is the fourth largest opening in this territory, employing about 375 men inside. During the past year considerable new territory has been opened and opening made to the outside, which were of decided benefit in ventilating the mine. The mine is well ventilated by two fans, one twenty, the other sixteen feet, and conditions are generally good.

UNION MINING COMPANY.

Union Mine No. 1.

Henry Shriver, Superintendent. M. Hamilton, Foreman.

Employs about 220 men inside. There is much trouble here with "black damp." While the fan forces plenty of air into the mine—58,304 feet per minute on the occasion of my last visit (March 23)—it has such a long distance to travel before reaching the men and trap-doors are depended on for distributing it, that it is a difficult matter to keep the mine clear. The parties in charge do all that can be expected, and I could suggest no remedy that would not be too costly or the putting off of some employees.

Roads are generally in good condition, and I have no fault to find, the law being obeyed as far as possible.

POTOMAC COAL COMPANY.

Potomac Mine.

Henry Shriver, Superintendent. P. H. Gallagher, Foreman.

Situated a short distance west of Barton. Has four openings—three in the four-foot and one in what is known locally as the "dirty nine-foot." There has been very little work done in these openings during the past year; for a time the openings in the four-foot vein were closed entirely. Conditions in the four-foot are fairly good. In the other opening, which is only new, natural ventilation was being depended on and at times air was scarce.

CONSOLIDATION COAL COMPANY.

Ocean No. 1.

B. S. Randolph, Superintendent. P. McMahon, Foreman.

In point of numbers this mine is second in Allegany county, employing about 590 men and boys inside. It is situated at Ocean, a station on the C. & P. R. R., and has a very large territory opened, connecting with Hoffman, Ocean Nos. 7 and 8 of the same company, and with Cutter Mine of the Georges Creek Coal and Iron Company.

The mine is well ventilated by two large exhaust fans and has several inlets. There are six air locomotives and several mining machines in operation. There is plenty of air circulating, drainage is good and roads also. There can be no fault found with existing conditions, the law being complied with in every way.

OCEAN NO. 2 AND FROST MINES.

Jas. Weston, Foreman.

The first (Ocean No. 2), situated a short distance west of Frostburg, employs about twelve men. The coal mined is used in and around Frostburg. It connects with Frost Mine and, the opening being much higher, acts the same as an air shaft. Conditions always good.

Frost Mine, situated at Borden, furnishes coal for the C. & P. R. R. engines, none being loaded for shipment. The number of miners has been decreased during the last year, only about fifteen being now employed, to twenty-two last year. Conditions the same as Ocean No. 2.

OCEAN NO. 3 (HOFFMAN).

Jas. Thomas, Foreman.

There are employed inside this mine about 425 men and boys. It is ventilated by a large fan. There is much difficulty experienced in this mine to comply with the law regarding ventilation. On the occasion of my last two visits there was not a sufficient quantity of air circulating in two headings. This was accounted for by the fact that improvements were being made in the main air-way, which made the opening of some trap-doors necessary. Miners and laborers in this mine are not as careful as they should be in obeying the law. I have found doors (or as they are better known, "slides" on brattices) left open. It can never be learned who is responsible for this. The air has a long distance to travel, the slope alone being 7,000 feet, and the great majority of miners work a mile and more from the bottom of the slope. The mine is very wet and requires constant vigilance. The roadways are frequently covered with water.

OCEAN NO. 3½ (ECKHART).

Daniel Krapff, Foreman.

This mine is in the Tyson vein and is situated on a branch of the C. & P. R. R. The first shipment was made in June, 1903. Natural ventilation has been depended on so far, and has been giving satisfaction. Not more than an average of twelve men have been employed during the year.

There has been no coal shipped from the big vein since my last report.

OCEAN NO. 7 (KLONDIKE.)

J. Jenkins, Foreman.

This is the largest and best equipped mine in the region, employing about 650 men and boys inside. There are two openings. In the larger opening are three slopes, known as the "Old Slope," "New Slope" and "Midway." The "New Slope" was driven from Ocean No. 1 and the grade is very heavy. The other opening, or New Mine, is in the opposite hill and connects with Carlos Mine. The slopes are ventilated by a large force fan and the New Mine by a smaller (16-foot) fan. At times there is considerable complain about "black damp" in the "Old Slope" where pillars are being drawn. There is plenty of air sent into the mine and it is generally well distributed.

Roads and drainage are in fair condition.

On the whole, the mining law is being complied with as nearly as can be expected, and conditions generally are good.

OCEAN NO. 7 (TYSON).

An opening in the small vein. Has but a few men employed, and does not come under the law.

OCEAN NO. 8.

Chas. Leighton, Foreman.

Situated near Midland, and has about seventy-five men employed inside. It is one of the many inlets for Ocean No. 1.

A small air locomotive hauls the coal from inside the mine to the dump. The mine is always found in good condition and the law obeyed.

OCEAN NO. 9.

Joseph Radcliff, Foreman.

Two drift openings in the Tyson vein, situated on the C. & P. R. R. near Union Mine No. 2. The coal mined here is almost entirely used by C. & P. engines. About twenty men are employed. Natural ventilation is depended on and has so far been giving satisfaction.

No fault can be found with conditions.

BARTON AND GEORGES CREEK VALLEY COAL CO.

A. Hitchins, Superintendent.

CARLOS MINES.

Harry Hitchins, Foreman.

This company operates four mines, known as Carlos Mines. They are situated on the Carlos Branch of the C. & P. R. R. There are three drift and one slope openings. A large fan ventilates the slope and one of the drifts, the others are ventilated by natural means.

Some "black damp" is encountered at times in one of the drifts, but as but little coal is in it only a few men are employed, who do not attempt to work when the air is bad. In the slope there is always found more air circulating than the law requires.

The law is complied with in every way and conditions are good.

PIEDMONT AND GEORGES CREEK COAL COMPANY.

J. S. Brophy, Superintendent.

WASHINGTON MINE NO. 1.

Martin Coudry, Foreman.

Situated on the Eckhart Branch of the C. & P. R. R. About eighty-five men and boys are employed in the three openings, which are ventilated by natural means. The openings connect with the old or abandoned workings of Hoffman and Eckhart Mines, and there are times when it is very difficult to furnish the required amount of air to some portions of the mine.

However, on the whole the law is obeyed and conditions fair.

WASHINGTON NO. 2.

Phillip Brown, Foreman.

Three openings near No. 1 in the opposite hill. One opening is in the big vein, the others in the small or Tyson vein. The big vein is ventilated by natural means and at times air is not very good; but it is seldom more than ten men are in the mine at one time, and it would be almost impossible to do any better than has been done.

The other two openings are ventilated by a splendid fan, which was placed during the year. While this fan is not so large as some in the region, it is, in my opinion, superior to any in operation, and is giving entire satisfaction.

About seventy-five men and boys are employed in these openings and conditions generally are good.

WASHINGTON NO. 3.

M. P. Fahey, Foreman.

Situated near Franklin, on the C. & P. R. R., and was known as Tacoma Mine until purchased by this company from the Dickey-Gibson Co. Since the new management took charge many and important improvements have been made and are being made. The mine is a drift in the six-foot vein and about eighty-seven men and boys are employed inside. It is ventilated by a fan which gives entire satisfaction. A new opening has been made during this year which will give natural drainage, a new air-way and nice regular grade.

A new tipple will be built and the new opening made the main heading for getting out coal.

Taken altogether, the law is obeyed in every way and the mine is in splendid condition.

H. & W. A. HITCHINS COMPANY.

BORDEN MINE.

Robt. Harvey, Superintendent and Foreman.

There are several openings into the big vein, only one of which has been worked lately with about forty-five men and boys inside.

Natural ventilation, conditions generally good and the law being complied with.

MIDLAND MINING COMPANY.

Wm. Somerville, Superintendent.

TRIMBLE MINE.

John Stime, Foreman.

This mine is situated about midway between Mount Savage and Morantown, on the C. & P. R. R.

Coal ranges from three to six feet in thickness, and an incline is used to bring the coal over from the openings to the dump.

The first shipment was made August 7, 1903. There has been very little work done in this mine since it has been opened. About twenty-four men are employed, or were the only time I found the mine working. Natural ventilation is depended on, and the law has been obeyed so far as I have been able to learn.

There are two openings, but one being worked.

ENTERPRISE MINE.

John Askey, Foreman.

Situated near Midland, on a branch of the C. & P. R. R. Drift opening, natural ventilation. About fifty men employed in the mine. The law is complied with and conditions generally good.

MOSCOW-GEORGES CREEK COAL COMPANY.

W. A. Somerville, Superintendent.

Moscow Mine No. 1.

N. Somerville, Foreman.

This mine is situated a short distance east of Barton, on the C. & P. R. R.; is a drift opening and ventilated by a small fan. Twenty-two men and boys inside. Conditions fairly good.

Moscow Mines Nos. 2 and 3.

On the opposite side of Georges Creek to No. 1, and under the same management, consist of three openings, one in the big vein, the others in the four-foot.

At no time were ten men employed in either of the openings; consequently they did not come under the law.

This company has built a splendid tipple and incline to their big vein; the tipple will also be used to dump the small-vein coal. They have also put in a good siding connecting with the C. & P. R. R.

ROCK VEIN COAL COMPANY.

S. F. Shelly, Superintendent.

Pine City Mine No. 1.

D. T. Williams, Foreman.

This mine is situated at Short Gap, about one and one-quarter miles east of Clarysville. There are altogether three openings, employing fifteen men inside and seven outside. The coal is four feet in height and is taken from the openings to the railroad (the Eckhart Branch of the C. & P. R. R.) by an aerial wire rope. There are twelve buckets on the line, each holding about 10 cwt.

It is an automatic system, the buckets releasing and hooking on of their own accord. The rope moves continually, the power being furnished by a 33-horse-power engine and 50-horse-power boiler.

SUMMIT COAL COMPANY.

MONTELL MINE.

Chas. Connors, Superintendent and Foreman.

This mine, situated a short distance east of Vale Summit along the G. C. & C. R. R., was abandoned several years ago and has been recently reopened. It does not come under the provisions of the law, as ten men are not employed inside. No doubt in the near future it will add considerably to the output from this region, as the present management is making extensive improvements and pushing the work rapidly.

GEORGES CREEK COAL AND IRON COMPANY.

Robert L. Somerville, Superintendent.

NO. 1 AND CUTTER MINES.

These mines are always found in good condition. Very little coal now being in No. 1. About eighty men employed in both mines.

This company, during the year just past, has made openings into the small or Tyson vein and has been shipping the coal over the G. C. & C. R. R. There is a large territory belonging to this company underlaid with this vein and a very costly apparatus is being constructed to convey the coal from the openings to the siding at No. 1 Mine which connects with the C. & P. R. R. At present there is only natural ventilation, but as only fifteen men are employed, it has been giving entire satisfaction.

Mr. Richard Spear has charge of these openings as well as No. 1 and Cutter.

No. 3, No. 9 AND No. 10.

John Boyd, Foreman.

No. 3, better known as Pine Hill, situated about midway between Midland and Lonaconing, employs about five men inside, a drift opening natural ventilation, and is always found in good condition.

No. 9, or Columbia, and No. 10 are situated at Gilmore. Both are drifts with natural ventilation, the coal from both being shipped over the G. C. & C. R. R. No. 10 is a new opening that does not yet come within the provisions of the law. About twenty men employed in No. 9, and conditions fair. The law is complied with.

NEW CENTRAL COAL COMPANY.

D. Sinclair, Superintendent.

KOONTZ MINE.

Wm. Thompson, Foreman.

There are two openings here, one in the big vein, the other in the Tyson. In the big vein there are about 100 men employed, forty of whom work at night. The roof is very dangerous, and that more accidents have not occurred is due to the extraordinary watchfulness and care of miners and foreman.

In the small vein no coal had been mined since 1900 until the early part of last year, and on the occasion of my last visit (April 16) there were but fourteen men in the mine. There is sufficient air circulating and the mine is in good condition.

LONACONING COAL COMPANY.

J. J. Dobbie, Superintendent.

SHAMROCK MINE.

Thos. Keating, Foreman.

This mine, situated a short distance east of Lonaconing, coal being shipped over the G. C. & C. R. R., is nearly worked out, only a few pillars remaining. About twenty-five men employed inside. Conditions are as good as can be expected.

MARYLAND COAL COMPANY.

F. E. Brackett, Superintendent.

APPLETON MINE.

Wm. Dodds, Foreman.

About 125 men are employed in this mine, which is ventilated by an exhaust fan which furnishes a great deal more air than is required by law. Roads are in good condition, and it is a very rare thing to hear any complaint from this mine.

NEW DETMOLD MINE.

August Ricker, Foreman.

About 140 men and boys employed in this mine. It is ventilated by a fan and the air is well distributed. Conditions are in every way about the same in the mines of this company, particular attention being given to keeping a fair turn.

AMERICAN COAL COMPANY.

Isaac Bradburn, Superintendent.

JACKSON MINES.

John Peel, Foreman.

There are altogether twelve openings working, eleven in the big vein, one in the small vein.

In the small vein there are thirty-four men employed. The mine is ventilated by natural means, and I always found a sufficient quantity of air circulating.

In the big vein about 150 men and boys inside, many of whom work night shift.

In No. 5 opening the most men are employed—about fifty-three, or one-third of the total. There is a large fan here which furnishes air for this opening.

The other openings depend on natural ventilation, but as they are all nearly worked out, men have no cause to complain. On the whole conditions are good.

CALEDONIA MINES.

Wm. Williamson, Foreman.

The Tyson and big veins are worked here. At no place in the region is the Tyson so thick as here; it will average nearly five feet.

Natural ventilation is depended on, and at times the air is not so good. I never found it, however. when a sufficient quantity was not circulating. The drainage is good and roads dry. About forty-eight men in this mine.

Big vein—fifty-nine men and boys inside. Natural ventilation, but as the main heading is driven close to the crop it is very little trouble or expense to open a place to daylight, consequently there is little fault to be found on account of air. During this year a new opening has been made and a tramway built connecting it with the top of the mine. A small locomotive has been placed on the tramway, which enables the company to save considerable in the haulage of the coal. Conditions fairly good.

PIEDMONT MINING COMPANY.

Geo. P. King, Superintendent.

PEKIN MINE.

John Carder, Foreman.

This mine has been opened during the last year and an incline and tramway, which were in use when the Atlantic Coal Company worked a mine with the same name, were repaired and more tramway built. The coal that is being taken out was abandoned by the Maryland Coal Company.

The tipple is situated at Pekin, a station on the C. & P. R. R., over which road the coal is shipped. About forty-three men are employed inside, and a small steam locomotive hauls the coal from the openings to head of incline. Air courses are driven to daylight, and the law is complied with in every way.

MOSCOW MINE.

John Creighton, Foreman.

This mine has been idle for some time. It is situated near Barton, on the C. & P. R. R., and employs twenty-two men. Conditions generally were fair.

CHAPMAN COAL MINING COMPANY.

Wm. J. Barnard, Superintendent.

SWANTON MINES.

There are three openings here in three different—four-foot, big vein and Tyson.

FOUR-FOOT MINE.

John Bucklen, Foreman.

This mine had been worked, as stated in my last report, on the "long wall system" previous to this company taking charge of it. They have changed this and driven a heading through the mountain which will give them an opportunity to always have plenty of good air.

Previous to getting this heading through, conditions as to air were certainly not all the law required. At present there is no fault to find. There are about twenty men in this mine.

TYSON AND BIG VEIN MINES.

John Bral, Foreman.

In the Big Vein there is nothing but crop coal, and never more than twelve men, divided on two shifts.

The Tyson vein is being pushed with about twenty men inside. All these openings depend on natural ventilation, which has so far been giving satisfaction.

FROSTBURG COAL MINING COMPANY.

S. D. Hoye, Superintendent.

MORRISON MINE.

L. Donahoe, Foreman.

There are two openings here, one in the three- the other in the four-foot seam. Machines are used altogether for mining the coal in the smaller vein. In the four-foot only a few men have been employed at one time. There has been very little work done here during the past year. The mine is not kept in as good condition as it should be. Nearly every visit I found a new foreman or superintendent, and never found the same set of miners. About twenty-five men were employed when I visited it last April.

PHOENIX MINING COMPANY.

Joseph H. McGovern, Superintendent.

PHOENIX MINE.

John Rankin, Foreman.

This mine, situated about three-quarters of a mile east of Franklin, on the C. & P. R. R., employs about forty-five men inside and is reached by two inclines. Natural ventilation and conditions fairly good, the law being complied with in every particular.

CUMBERLAND AND GEORGES CREEK COAL CO.

J. L. Connard, Superintendent and Foreman.

PENN MINE.

This is an opening in the four-foot vein a short distance east of Franklin, and is reached by an incline. It is ventilated by a furnace, which so far has given satisfaction. There was very little coal mined here during the past, very rarely being ten men in the mine at one time.

About the 10th of March a check weighman was put on at the scales, some of the miners thinking they were not getting just weight. At this time there were twenty-eight men employed. He was kept only a short time, not because the operators objected, I understand, but he could not collect his pay.

PIEDMONT AND CUMBERLAND COAL COMPANY.

F. A. Sharpe, Superintendent.

HAMPSHIRE MINE.

Jas. McDonald, Foreman.

Very little coal has been mined here during the past year. Since my last report the big vein of this company has been entirely worked out.

The opening now working is in the six-foot seam and employs about eighty men inside. The mine is ventilated by a fan, which generally gives satisfaction. There was a break in the machinery which runs the fan and the mine was in bad condition for a short time. The law is being complied with and conditions fair.

DAVIS COAL AND COKE COMPANY.

O. Tibbetts, Superintendent.

BUXTON MINE.

Robt. Grant, Foreman.

This mine has heretofore been reported in Garrett county, and a great part of it is, but the opening is in Allegany, a short distance from where the Savage empties into the Potomac River.

It is the largest opening in this region in the six-foot vein, employing about 200 men and boys inside. The mine is ventilated by two fans, one on each side of the main opening, which furnish at all times more than the required amount of air. The air is conducted to the different headings by trap-doors which are attended to by boys hired for the purpose. The doors are not given the attention they should. This, in my opinion, is not the fault of the management, who must depend on these parties to do what they are paid. No miner or driver will complain to the foreman, although he (the miner) is being injured by carelessness on the part of those having charge of doors. I can make no suggestion to remedy this evil, except more watchfulness on the part of the foreman or his assistants.

Franklin Mine.

Henry Biggs, Foreman.

This mine was in the big vein and the last coal was mined about April 1. During the year there were about forty-five men and boys employed working a day and night shift, about half of them on each shift or turn. Natural means were used for ventilation, and satisfaction was generally given. The coal from both these mines was weighed and dumped in West Virginia and shipped over the W. Va. C. & P. R. R.

G. C. PATTISON COAL COMPANY.

Pattison Mine.

Carroll Pattison, Superintendent and Foreman.

Situated a short distance west of Bloomington, on the B. & O. R. R.; an opening in the six-foot, also one in the four-foot veins. During the year there has been very little work done in either opening. At no time was there more than six or eight men in the four-foot. The other opening is ventilated by a fan, and conditions generally are satisfactory. About thirty men and boys employed.

MONROE COAL MINING COMPANY.

Wm. McFarlane, Superintendent.

Barnum Mines.

Wm. Beaver, Foreman.

Situated at Barnum, on the W. Va. C. & P. R. R., about eight miles south of Westernport. Two veins are being worked, the four- and six-foot, an opening in each.

The upper, or four-foot, is ventilated by natnral means, and is not always found in as good condition as it should be. The lower is well ventilated by a fan and always found in good condition.

The mining in the lower is done with machinery, the only mine in Garrett county where machines are used.

Conditions generally good and the law complied with. Forty men in small vein, twenty-five in big vein.

BLAINE MINING COMPANY.

S. B. Brydon, Superintendent.

Blaine Mine.

W. M. Drainer, Foreman.

Situated on the W. Va. C. & P. R. R., about eighteen miles south of Westernport; an opening in the six-foot vein, employing about seventy men and boys inside. A fan has been put in operation at this mine during this year and many improvements made inside. The mine is well ventilated and drained, and the law complied with in every way.

GARRETT COUNTY COAL MINING COMPANY.

H. B. Douglas, Superintendent.

DILL MINE.

This mine, situated near Blaine Mine, has been worked very little during the past year. On but one of my visits did I find it working, and then it was very poorly ventilated.

About twenty men and boys inside.

DODSON MINE.

T. F. Malloy, Foreman.

This mine has been opened during the last year. The company has gone to considerable expense and laid out a nice village and built several houses close to the mine. It is situated a short distance south of Harrison, and the tipple or dump is connected with the W. Va. C. & P. R. R. by a siding; a substantial bridge crosses the Potomac River.

There are two openings, but one of which has been developed so far to any extent. The mine is well laid off and an up-to-date system inaugurated.

At present it is ventilated by a furnace, which gives entire satisfaction. When necessary a fan can be be placed in operation with very little trouble or expense. On my last visit there were seventy-five men and boys employed inside. Conditions were good and the law being complied with in every way.

UPPER POTOMAC MINING COMPANY.

F. L. Grammar, Superintendent and Foreman.

This mine is situated about twenty-five miles south of Westernport, on the W. Va. C. & P. R. R. The first coal was shipped from here in October, 1903. Very little progress has been made so far, on account of a very serious explosion which has retarded the work. This opening does not come under the provisions of the law, as at no time have ten men been employed.

BATEMAN COAL COMPANY.

H. E. Gray, Superintendent.

ALICE MINE.

Felix Roth, Foreman.

Situated at Stoyer, a station on the W. Va. C. & P. R. R., thirty miles south of Westernport; made the first shipment October 28, 1903. This mine came under the law about the first of the year. I was not notified there was an opening here until the latter end of February, and visited it March 3, the only visit I made. There had been very little attention paid to the law previous to my visit, but I was assured the law would be complied with in the future. I found fifteen men in the mine; there were two shifts being worked, with the same number in each shift. Natural ventilation was depended on, and was not giving satisfaction.

LAKE PORTS-ATLANTIC COAL AND COKE COMPANY.

BLACK DIAMOND MINE.

Peter Donay, Superintendent and Foreman.

Situated one and one-quarter miles north of Gorman. Made first shipment November 24, 1903. Only a few men have been employed in this mine at any time.

FIRE-CLAY MINES.

BIG SAVAGE FIRE-BRICK COMPANY.

J. N. Benson, General Manager. J. J. Maury, Foreman.

These are new works that have been in operation but a short time, the first clay being mined last fall.

The works are situated at Allegany, a small station on the C. & P. R. R., east of Frostburg. The clay mined is the well-known Mount Savage fire-clay, which has been in use for more than fifty years. The Coal used is taken from the same opening as the clay.

At present there are employed in the mine thirty-one men and boys, besides two other laborers. The mine is ventilated by natural means and all the requirements of the law are being complied with.

SAVAGE MOUNTAIN FIRE-BRICK COMPANY.

E. G. Buckingham, Manager. C. H. Shuckhart, Foreman.

The mine of this company is situated three miles west of Frostburg, and is in Garrett county. There are from eight to ten men employed in the mine. The clay is loaded into wagons and hauled over the National Road to Frostburg, where the brick yard is located and where about thirty-five men and boys are employed. Natural ventilation is used in the mine, and there is never any cause to find fault.

FATAL ACCIDENTS

1903.

1. May 8.—Noah Skidmore, miner; residence, Frostburg; married. Was killed by fall of roof coal in Union Mine No. 1, of the Union Mining Company. His place was well timbered and it was purely an accident.
2. May 9.—Wm. Drummond, driver; age 19; residence, Frost Mine. Fell between loaded cars and was badly crushed, dying three days later.
3. June 1.—Henry Munson, fire-clay miner; age 28; single; residence, Hancock, Md. While he and two other men were lifting a car on the track a large piece of soapstone fell, killing him instantly.
4. June 24.—James Lee, miner; age 14; residence, Eckhart. Was killed by fall of roof coal in Hoffman Mine. He was a considerable distance back from his working place; the coal supporting one end of a bar gave way, letting the bar and about fifteen tons down on him.
5. August 24.—David Percy, laborer; age 62; residence, Lonaconing. While greasing rollers on the incline at Caledonia Mine was struck by trip of loaded cars and killed instantly.
6. August 22.—Thos. F. Smith, brakeman on air motor; age —; married; residence, Shaft. Was caught between motor and loaded car and killed instantly in Hoffman Mine.
7. October 30.—Greenbury Twigg, box-car loader; age 47; married; residence, Frostburg. Was caught between side of car and hopper on box-car loader at Ocean No. 7.
8. December 23.—Wm. Wilson, Sr., miner; age about 70; residence, Lonaconing. Was killed by fall of roof coal in Appleton Mine.

1904.

9. February 23.—Wm. Schmidt, laborer; age 28; married; residence, Blaine. Was killed by blast of dynamite in Upper Potomac Mine. I did not know there was such a mine until some time after this accident. There were nine men in the mine when the accident occurred. The main heading where blasting was being done was 650 feet from the mouth of the mine, and Schmidt was about fifty feet from the opening. He was blown about 200 feet and lodged in the fork of a tree. From inquiries made I learned there was a heavy charge of dynamite put off, the shock causing other dynamite some distance back to explode.
10. March 31.—Joseph Benson, age 15; laborer; residence, Frostburg. Was killed on tramway at Big Savage Fire-Clay Mine. Four cars were being run down the tramway when a wheel fell off of one of the cars, letting the car down and causing two other cars to jump off the track, on one of which was some 2x3-inch lumber. This lumber was pushed back and caught Benson, who was riding, in the stomach. He died about seven hours afterwards.

11. February 8.—Edward Rizer, age 45; married; residence, Mount Savage. Was killed by fall of roof in Big Savage Fire-Clay Mine. He was not employed in the mine, but had gone in with a friend who was a coal miner. Some men near him told him he was in a dangerous place, but he did not get out in time. None of the authorities knew he was in the mine.
12. April 14.—Harry Klemoff, scraper; age —; single; residence, Ocean. While scraping for mining machine the breast coal fell, killing him almost instantly, in Ocean No. 1.

NON-FATAL ACCIDENTS

1903.

UNION MINE NO. 2.

1. May 30.—Charles Stevens, miner; age 35; married; residence, Allegany. Cut his foot while timbering.
2. May 22.—Addison Smith, miner; age 50; married; residence, Morantown. Breast slate fell on him, severely bruising his back and side.
3. June 4.—Wm. Porter, roadman; age 18; residence, Allegany. Cut his finger with an axe.
4. June 5.—Wm. Dean, miner; age 15; residence, Borden. Back and leg injured by fall of breast slate.
5. June 8.—Charles Grainer, miner; age 20; single; residence, Allegany. Had his foot caught between cars.
6. June 10.—James Gordon, driver; age 23; married; residence, Borden. Foot squeezed between cars.
7. July 22.—Edward Galaway, driver; age 24; single; residence, Allegany. Jumping off trip had his head and hip slightly bruised.
8. September 25.—Thomas Kenny, miner; age 25; single; residence, Mount Savage. Back and head bruised by fall of breast slate.
9. October 3.—Wm. McDonald, miner; age 20; residence, Frostburg. Back and side slightly injured by fall of breast slate.
10. November 5.—George Bailey, laborer; age 40; single; residence, Cumberland. While unloading a car slightly injured by piece of slate.
11. November 27.—Wm. Hager, miner; age 15; residence, Borden. Leg broken and skull fractured by fall of breast slate.
12. December 11.—Sam Serwann, miner; age 23; single; residence, Morantown. Nose broken by piece of breast slate.

1904.

13. January 6.—Charles Harden, driver; age 24; married; residence, Morantown. Caught between two cars, leg slightly hurt.
14. February 5.—Andrew Rosspi, miner; age 35; married; residence, Frostburg. Back injured by fall of breast slate.
15. February 6.—Frank Anton, miner; age 30; single; residence, Frostburg. Car jumped the track and caught his fingers between it and a prop.
16. February 11.—Verus Workman, driver; age 22; single; residence, Frostburg. Car jumping track caught his foot, taking part of it off.
17. March 4.—Howard Shaffer, dumpman; age 24; married; residence, Frostburg. A piece of coal fell off a car, mashing his hand.

18. March 8.—Sam Hemwright, miner; age 35; married; residence, Mount Savage. Breast coal cut his back and leg.
19. March 8.—Harry Porter, miner; age 25; married; residence, Frostburg. Injured about the body by fall of breast slate.
20. March 10.—Wm. Domdary, driver; age 22; married; residence, Frostburg. Kicked in the face by a horse, injury slight.
21. March 12.—Robert Hamilton, driver; age 20; single; residence, Allegany. Had his leg fractured by fall of roof coal.
22. March 19.—John Webster, miner; age 58; married; residence, Frostburg. Back and otherwise injured by fall of breast slate.

HOFFMAN MINE.

1903.

23. May 2.—Joseph Brown, miner; married; residence, Frostburg. Toe mashed by fall of breast coal.
24. July 10.—James Price, miner; age 17; single; residence, Frostburg. Side and back hurt by fall of rib coal.
25. November 28.—George Scott, brakeman on air motor; age 21; single; residence, Vale Summit. Had three of his fingers taken off by motor.
26. December 9.—Wm. Switzer, miner; age 30; single; residence, Frostburg. Leg broken and back hurt by fall of roof coal.

1904.

27. January 13.—Wm. Carter, laborer; age 27; single; residence, Hoffman. Leg caught between empty mine cars.
28. February 15.—Thos. Delaney, miner; age 48; married; residence, Eckhart. Leg broken by fall of roof coal.
29. February 20.—Peter Hughes, coal inspector; age 45; married; residence, Hoffman. Leg squeezed by empty mine cars.

OCEAN NO. 7 (KLONDIKE).

1903.

30. May 4.—Levi Shockey, miner; age 29; married; residence, Lonaconing. His brother stuck a pick in his arm.
31. May 10.—James Davis, driver; age 24; single; residence, Lord. Arm caught between mine cars.
32. July 20.—Henry Strickland, scraper; age 20; residence, Lord. Foot hurt by fall of breast coal.
33. July 24.—George Whitfield, Jr., miner; age 18; residence, Midland. Leg broken by fall of breast coal.
34. July 31.—John Taylor, miner; age 45; married; residence, Shaft. Bar fell on his foot; injury slight.
35. July 31.—Harmon Getson, roadman; age 28; single; residence, Lonaconing. Arm cut by splinter of iron.
36. August 12.—Snyder Washington, driver; age 30; married; residence, Frostburg. Kicked by mule; injury slight.
37. August 3.—John Plummer, coupler; age 14; residence, Shaft. Hand caught by car.
38. August 21.—Louis Spiker, carpenter; age 35; married; residence, Lord. Leg caught between cars.

No. 1 Union.

1903.

39. June 13.—Frank Shay, trapper; age 15; residence, Frostburg. Car jumped the track and mashed his foot so badly it was amputated.

Ocean No. 1.

1903.

40. June 19.—Bernard Killduff, car coupler; age 17; residence, Midland. Struck by haulage rope; ankle badly bruised.
41. July 18.—Wm. Broderick, brakeman on motor; age 19; residence, Midland. Slightly injured by falling in front of empty cars while trying to make a flying switch.
42. August 28.—Michael Delaney, brakeman on motor; age 37; single; residence, ————. Leg crushed by motor.
43. December 18.—Thos. Taylor, Jr., car coupler; age 18; residence, Midland. Struck by mine cars; collar bone broken and other injuries.
44. December 28.—Terrence Corrigan, engineer on air motor; single; residence, Midland. Had his foot crushed by motor.

1904.

45. April 27.—Myles Thompson, miner; age 42; married; residence, Midland. Leg broken by fall of breast coal.
46. April 9.—John Barber, scraper; single; residence, Vale Summit. Injured by fall of breast coal.
47. April 9.—Isaac Miller, driver; age —; single; residence, Gilmore. Car run over his foot.
48. April 27.— ——— Long, extra driver; age —; single; residence, Gilmore. Injured by fall of breast coal.

Ocean No. 9.

1904.

49. January 27.—Ralph Barber, miner; age 19; residence, Vale Summit. Injured slightly by fall of rock.

Ocean No. 8.

1903.

50. July 18.—Henry C. Cutter, miner; age 34; residence, Lonaconing. Collar bone broken by fall of breast coal.
51. September 25.—Wm. Thompson, miner; age 30; single; residence, Frostburg. While attempting to jump on motor train had his back injured.
52. September 26.—Charles Clark, miner; age 25; single; residence, Frostburg. Had his leg and nose broken by fall of breast coal while scraping after mining machine.

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CARLOS MINE.

1903.

53. October 30.—Joseph Martin, miner; age 16; residence, Grahamtown. Had his leg and three ribs broken and was otherwise injured by fall of roof coal.

WASHINGTON MINE NO. 3.

1903.

54. May 8.—I. N. Loyd, miner; age 42; married; residence, Westernport. Had his leg slightly injured by fall of draw slate.

PINE CITY MINE NO. 1.

1903.

55. September 28.—John B. Jenkins, outside laborer; age —; married; residence, Frost Mine. While rolling a stone he fell and broke his leg.

1904.

56. December 18.—Jacob Blubaugh, Sr., miner; age 40; married; residence, Swanton. Had his foot caught between bumper of car and frog.

MOSCOW MINE.

1904.

57. January 26.—Otto Winkler, miner; age 30; single; residence, Barton. Had his back slightly injured by fall of roof coal.
58. August 3.—John Skidmore, miner; age 35; married; residence, Moscow. Foot badly mashed by fall of roof coal.

PEKIN MINE.

1904.

59. March 29.—J. Egan, driver; age 26; single; residence, Westernport. Had his foot mashed between the bumpers of mine cars.
60. April 18.—H. Evans, miner; age 27; residence, Pekin. Slightly injured about the breast by fall of breast coal.

PHOENIX MINE.

1903.

61. December 21.—Henry Shrout, miner; age 30; married; residence, Westernport. Had his leg slightly sprained by car running on it.

BUXTON MINE.

1903.

62. October 14.—John Goodwin, miner; age 28; married; residence, Savage, W. Va. Had his leg broken in two places by rock falling out of roof while he was loading a car.

BARNUM MINE.

1903.

63. May 4.—John Warnick, miner; age 27; married; residence, Bethel, Md. Slightly injured by explosion of can of powder.

64. May 4.—Wm. Barnard, age 32; married; residence, Walnut Bottom. Slightly injured by fall of top coal.

65. December 1.—J. H. Conley, scraper; age 25; single; residence, Luke, Md. Had his hand caught between fall of rock and pavement.

JACKSON MINE.

1903.

66. July 18.—Raphael Murray, miner; age —; residence, Moscow. Was caught between fall of breast coal and prop and badly bruised.

67. October 13.—James E. McKenzie, miner. Had his leg broken near the ankle by fall of breast coal.

Table of Accidents for Year Ending April 30, 1904.

Name of Company.	Name of Mine.	Fatal.	Non-Fatal.
Union Mining Co.	Union No. 1	1	1
Union Mining Co.	Union No. 2	1	22
Union Mining Co.	Fire Clay	1	..
Big Savage Fire Brick	Fire Clay	2	..
Consolidation Coal Co.	Hoffman	2	7
Consolidation Coal Co.	Ocean No. 7	1	9
Consolidation Coal Co.	Ocean No. 1	1	9
Maryland Coal Co.	Appleton	1	..
American Coal Co.	Caledonia	1	..
American Coal Co.	Jackson	..	2
Consolidation Coal Co.	Ocean No. 8	..	3
Consolidation Coal Co.	Ocean No. 9	..	1
Piedmont & George's Creek Coal Co.	Washington No. 3	..	1
Rock Vein Coal Co.	Pine City	..	2
Barton & George's Creek Valley	Carlos	..	1
Piedmont Mining Co.	Moscow	..	2
Piedmont Mining Co.	Pekin	..	2
Phoenix Mining	Phoenix	..	1
Davis Coal and Coke	Buxton	..	1
Monroe Coal Mining	Barnum	..	3
Upper Potomac Coal	Upper Potomac	1	..
		12	67

Names of Companies and Addresses of Superintendents.

Name of Company.	Name of Superintendent.	Address.
Consolidation Coal	B. S. Randolph	Frostburg, Md.
Barton & G. C. V. Coal	A. Hitchins	Frostburg, Md.
Union Mining	Henry Shriver	Mt. Savage, Md.
Maryland Coal	F. E. Brackett	Lonaconing, Md.
American Coal	I. Bradburn	Lonaconing, Md.
George's Creek C. & I.	Robert Somerville	Lonaconing, Md.
Piedmont & G. C. Coal	J. S. Brophy	Frostburg, Md.
H. & W. A. Hitchins	Robert Harvey	Shaft, Md.
New Central Coal	D. Sinclair	Lonaconing, Md.
Lonaconing Coal	J. J. Dobbie	Lonaconing, Md.
Midland Mining	Wm. Somerville	Cumberland, Md.
Piedmont Mining	Geo. P. King	Piedmont, W. Va.
Piedmont & Cumb. Coal Co.	F. G. Sharpe	Piedmont, W. Va.
Frostburg Coal Mining	S. D. Hoye	Piedmont, W. Va.
Cumberland & George's Creek Coal	J. L. Connard	Piedmont, W. Va.
Phoenix Mining	Jos. H. McGovern	Piedmont, W. Va.
Chapman Coal Mining	Wm. Barnard	Barton, Md.
Moscow & George's Creek Mining	Wm. Somerville	Cumberland, Md.
Rock Vein Coal	D. T. Williams	Frostburg, Md.
Summit Coal	Chas. Connors	Cumberland, Md.
Davis Coal & Coke	O'Tibbetts	Savage, W. Va.
Monroe Coal Mining	Wm. McFarlane	Barnum, W. Va.
Blaine Mining	S. B. Brydon	Blaine, W. Va.
Garrett Co. Coal Mining	H. B. Douglas	Dodson, Md.
G. C. Pattison Co.	C. Pattison	Bloomington, Md.
Upper Potomac Coal	C. F. L. Grammar	Up'r Potomac, W. Va.
Bateman Coal	H. E. Gray	Gormania, W. Va.
Lake Ports & Atlantic Coal and Coke	W. A. Mintuir	Pittsburg, Pa.
Big Savage Fire Brick Co.	J. N. Benson	Frostburg, Md.
Savage Mountain Fire Brick Co	E. G. Buckingham	Frostburg, Md.

Number of Miners, Laborers, Days Worked and Output During 1903.

NAME OF COMPANY.	NAME OF MINE.	No. of Miners.	No. of Drivers and Laborers Inside.	No. of Laborers Outside.	Totals, D. and L.	Days worked.	Output.
Consolidation Coal	Ocean No. 1	440			180	254	$477,079.08
Consolidation Coal	Ocean No. 2	12			3	307	12,500.00
Consolidation Coal	Tyson No. 2	4				25¾	65.00
Consolidation Coal	Ocean No. 3	357			165	272	414,817.02
Consolidation Coal	Ocean No. 3½						5,443.13
Consolidation Coal	Tyson	11			42		33.00
Consolidation Coal	Ocean No. 7	547			193	237	724,947.07
Consolidation Coal	Tyson	4			2	143	2,713.03
Consolidation Coal	Ocean No. 8-9	63			18	275	88,628.04
Consolidation Coal	Tyson	9			14	176	3,666.01
Consolidation Coal	Frost	15			4	304	19,881.13
Consolidation Coal	Pumping Shaft	6			49	275	11,731.00
Union Mining	Fire Clay	92	52	38	90	296	
Union Mining	Union No. 1	185	32	22	54	190¾	239,016.16
New York Mining	Union No. 2	302	70	48	118		331,089.09
Potomac Coal	Potomac	30	6	7	13		24,742.00
Piedmont & George's Creek Coal	Washington No. 1	57	26	9	35	203	66,534.07
Piedmont & George's Creek Coal	Washington No. 2	74	24	6	30	202	38,926.13
Piedmont & George's Creek Coal	Washington No. 3	67	20	10	30	97	30,494.15
Barton & G. C. V.	Carlos	229	32	24	56	215	222,598.05
H. & W. A. Hitchins	Borden	35	10	5	15	298	43,407.00
American Coal	Jackson	179			57	220	221,035.02
American Coal	Caledonia	69			23	181	72,947.16
Maryland Coal	New Detmold	154			35	175½	165,946.08
Maryland Coal	Appleton	136			36	170½	142,973.12
George's Creek Coal & Iron	In their 5 Openings	165			60	223	191,768.00
New Central Coal	Koontz, B. V.	100			20		
New Central Coal	Small Vein	12					
Lonaconing Coal	Shamrock	25			7		
Piedmont Mining	Moscow	30	6	5	11	275	27,697.00
Piedmont Mining	Pekin	22	4	4	8	25	3,405.00
Piedmont & Cumberland Coal	Hampshire	74	8	7	15	154	38,912.00
Frostburg Coal Mining	Morrison	25	2	3	5	160	16,493.00
Cumberland & George's Creek	Penn	20			5		
Davis Coal & Coke	Franklin	38	6	8	14	282	52,883.00
Davis Coal & Coke	Buxton	187	32	18	50	288	177,524.00
Blaine Mining	Blaine	45	8	7	15	191	35,299.00
Chapman Coal Mining	Big Vein	12	5	6	11		16,180.00
Chapman Coal Mining	Tyson	20					
Chapman Coal Mining	Small Vein	25					
G. C. Pattison	Pattison	15			5		
Savage Mountain Fire Brick	Fire Clay	9			4		
Big Savage Fire Brick	Fire Clay	12	3	2	5		
Phoenix Mining	Phoenix	45			10		
Monroe Coal Mining	Barnum	65			14		
Garrett Co. Coal Mining	Dodson	75			15		
Bateman Coal	Alice	30			5		
Upper Potomac Mining Co.					10		
Lake Ports & Atlantic Coal *Co.*	Black Diamond				8		

REPORT

OF THE

Mine Inspector for Allegany and Garrett Counties Maryland

Covering Inspections of Coal and Fire Clay Mines
from May 1, 1904, to May 1, 1905

THOMAS MURPHY, Mine Inspector

LONACONING
THE GEORGES CREEK PRESS
1905

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LETTER OF TRANSMITTAL.

To His Excellency, Edwin Warfield,

Governor of Maryland.

Sir: I have the honor to submit herewith my first annual report as Mine Inspector for Allegany and Garrett counties, in compliance with the requirements of Chapter 124, of the Acts of the General Assembly of 1902, January session.

Very respectfully,

THOMAS MURPHY,

Mine Inspector.

REVIEW
OF
CONDITIONS
WITH
RECOMMENDATIONS.

In 1904 the business of coal mining in this State has not been, perhaps, so prosperous, as during the "boom times" of 1902 and 1903; yet the business has shown a steady and persistent growth, something always more helpful to any industry than that of "mush-room" variety. The production of 1904 is said to have fallen slightly under the output of 1903; as no official records covering 1903 have been available, I cannot state positively. The total amount of coal mined in the two counties—Allegany and Garrett—in 1904, was 4,277,196 tons; of this amount 427,332 tons was mined by the use of machinery. The total number of men engaged in the production of coal was 5,996. There is considerable present activity in development of new coal operations in the Maryland fields, and the output is more likely to increase than diminish in the future. At present this development is more active in Garrett county, along the line of the West Virginia Central and Pittsburg Railroad, and is confined to the lower veins, geologically speaking, all of which are also found in the Georges Creek basin in Allegany county, but mainly undeveloped as yet. The accidents for the period from May 1, 1904, to May 1, 1905, are given in detail during the course of this report; the only recommendation apparent in this matter is, that mine foremen or their assistants be obliged to visit each working place at least once in every two days. It is true that many foremen do now make inspections throughout their mines daily, but many do not; and were the law to compel visits every two days, the number of accidents from carelessness would be greatly lessened. This would also greatly aid the Inspector in enforcing the law; sometimes miners grow careless in protecting their working-places with timbers, for which they are responsible; if the mine foreman or his assistants find and report careless miners, the Inspector would be enabled to compel greater attention to duty, and thus prevent many distressing accidents, often involving others beside the ones directly responsible for disaster.

I am glad to say that most of the companies are endeavoring to observe the law with reference to ventilation. Commendable efforts are being made to carry out the requirements of the law. In some cases, where the ventilation laws were persistently violated, action was brought against those responsible, under the law; a more detailed account of which will be found in an appropriate section of this report. Every effort was made to adjust these cases amicably before proceeding to the unpleasant task of invoking the aid of the Courts; but the law must be observed at whatever trouble. In some particular instances, full enforcement, however, under existing conditions, can not well be had; certainly not immediately. In such case, if every effort to obey the law to fullest possible extent is made, it would seem that should fairly be considered compliance.

I would recommend a change in the maximum distance permitted between cut-throughs, from 105 feet, as at present, to 70 or 80 feet, for thin veins, especially in rooms, where the ventilating current moves most slowly. Most men are disposed to take the limit allowed by any law; and while most companies operating thin veins are doing so now, it would be well to fix a smaller distance definitely, against the time when the thinner seams will be largely developed in Maryland.

I earnestly request a recommendation to the next session of the General Assembly, of a change in the present section relating to the burning of oil in mines—Sub-section E, Duties of Employees: "No employee shall burn any oil in the mines, composed wholly or in part of petroleum or its products, but such oil must be at least seventy-five per cent. pure lard. Provided, that this Section shall not prevent the use of 'Sunshine,'as an illuminant." At no time has this section been enforced, and it seems impossible to enforce it as it stands. Poor results have followed efforts to induce employers and employees to use better grades of oil. I have laid the matter before each Grand Jury without accomplishing anything. The constant objection is, that oil of the grade required cannot be procured from store-keepers.

It is necessary to have better oil burned, to keep the supply of air uncontaminated by noxious smoke, ruinous to the health of every man within the poisonous draft. I am satisfied that it is the desire of everyone to burn a better grade of oil, but some different mode of securing observance of this necessary provision is essential. Dealers say that when they furnish a superior grade of oil, they cannot sell it, since they cannot compete with men offering cheaper grades of oil. Various Mine Inspectors throughout other mining States advise me that only in States prohibiting either the manufacture or sale of inferior grades of miners' oil is there anything like success in securing attention to the importance of burning good oil, uniformly, through the mines. The present section, also, sets the standard unnecessarily high. Oils are sold, having less than seventy-five per cent. lard, that give off very little smoke; and with a reasonable standard grade required, and the manufacture, sale by any dealer, or use by anyone connected with the mines, of a grade below the standard, prohibited, under penalties, it is safe to say that a great amount of the dangerous smoke nuisance would be abated.

In view of the fact that one fatal accident during the year resulted from the careless handling of blasting powder, it would be well for the Assembly to consider the question of regulating the amount of powder a miner may take into the mine in any day or shift. Shot-firing should either be regulated by law, or authority given the Inspector to impose regulations for the protection of ventilation in mines, from reckless, indiscriminate blasting, both by coal companies and individual miners. Maryland's mining laws provide as much air ventilation as any State in the Union, excepting only the dangerous, explosive-gas impregnated mines of the anthracite mines, in Pennsylvania; but when shots are fired without regard to the ventilation, the air will not clear off smoke from the workmen as it should be cleared.

I am indebted to the coal companies of both counties for the manner in which they furnished me the statistical matter herein contained, also to my predecessor for copies of his reports, covering his term of office.

For the supplying of many things necessary to the proper equipment of the Mine Inspector's office, there should be an expense or contingent fund provided the Inspector.

THE COAL AREA OF MARYLAND.

In preparing the statistical information for this Report, I sent to the various coal companies, among other questions, requests for statements of the various veins or seams of coal workable, on their properties; and their estimates of the area unworked. Many of the companies, particularly the larger ones, were unable to furnish this information upon such short notice; but it is evident from the incomplete information obtained that the revenues yet to be expected from Maryland's coal industries are almost limitless. Seven or eight workable seams, beside the "Big Vein," are almost untouched; and very large acreages of each have been defined. Of the "Big Vein," generally reputed about exhausted, I believe that with the present improved methods of mining as much coal will yet be marketed as has been shipped in the history of the region from the first opening until now. One company, popularly supposed to be about "worked out" reports yet unmined, 500 acres of this famous coal, of which only 17,000 to 20,000 acres was supposed to exist in the beginning.

I regret that complete figures upon the extent of coal could not be secured in time for this report, but hope to be able to furnish accurate statistics by next May 1.

TABLE SHOWING INSPECTIONS DURING YEAR.

COMPANY	MINE	NO. VISITS
Cumberland Basin Coal Co.	Barrelsville	2
McMullen Bros.	Barrelsville, No. 1	5
Georges Creek Bald Knob Coal Co.	Nos. 1 and 2 Bald Knob	4
Wachovia Coal Co.	No. 1 Montell	4
Midland Mining Co.	Trimble mine	7
	Enterprise	7
Union Mining Co.	Union No. 2	12
	Union No. 1	8
Consolidation Coal Co.	Ocean No. 1	18
	Ocean No. 3 (Hoffman)	16
	Ocean No. 7 (Klondyke)	19
	Ocean No. 8	7
	Ocean No. 9	7
	Ocean No. 10	2
Piedmont and Georges Creek Coal Co.	Washington No. 1	9
	Washington No. 2	7
	Washington No. 3	7
Georges Creek Coal and Iron Co.	No. 1 (Engineside)	7
	No. 3 (Pine Hill)	7
	No. 9 Columbia)	7
	No. 12	3
	No. 10	5
	Nos. 16 and 17 (Tyson)	5
Barton and Georges Creek Valley Coal Co.	Carlos mine	9
Braddock Coal Co.	Pine City	6
H. & W. A. Hitchins Co.	Borden mine	7
New Central Coal Co.	Big Vein and Tyson	7
Maryland Coal Co.	Appleton	8
	Patton	7
American Coal Co.	Jackson	9
	Caledonia	8
Piedmont Mining Co.	Pekin mine	7
	Moscow mine	5
W. J. Chapman Coal Co.	Swanton mine	8
Potomac Mining Co.	Potomac mine	8
Phoenix and Georges Creek Coal Co.	Phoenix mine	7
Frostburg Coal Co.	Ginseng	3
Cumberland-Georges Creek Coal Co.	Penn Colliery	8
Moscow-Georges Creek Coal Co.	Nos. 1 and 2	6
Piedmont-Cumberland Coal Co.	Hampshire	7
Davis Coal and Coke Co.	Buxton	6
Lonaconing Coal Co.	Shamrock	1
Dateman Mining Co., now Stoyer Run Coal Co.	Stoyer	5
Garrett County Coal Mining Co.	Dodson	5
Upper Potomac Coal Co.	Upper Potomac	5
Blaine Mining Co.	North American mine	7
Monroe Coal Mining Co.	Barnum	6
Davis-Harvey Coal Co.	Blaine mine	2
Nethkin Coal and Coke Co.	Bayard	2
Bloomington Pattison Coal Co.	Black Bear	3
Total visits to coal mines during	year	337
The Union Mining Co.	Fire Clay mines	5
Big Savage Fire Clay Co.	Mine	5
Savage Mountain Fire Brick Co.	Savage Mt. mine	2
Total visits to Fire Clay mines		12
Total visits of inspection during	year	349

This includes testing scales, going back to mines where fatal accidents have occurred, and all other visits of inspection. It will be noticed that more visits are recorded than there are working days. In cases where mines are small and close together, two or three may be inspected in one day—at one place four. A tremendous amount of physical labor is required in properly inspecting a mine. The working places—where every miner is at work—should be personally seen, to be informed whether the miners are painstaking and careful, and whether they have the ventilation to which every man engaged in the dangerous and often unremunerative calling of a miner is entitled. In some of the small vein mines, where the visitor must crawl upon hands and knees to reach the miners, or in such mines as Ocean No. 7, of the Consolidation Company, employing 650 miners, this is a slow and arduous task.

Description of the Mines.

McMULLEN BROS.

Mine No. 2. Barrelville.

D. F. McMullen, Gen. Manager. James Barrett, Mining Supt.
Cumberland, Md. Frostburg, Md.

In September of 1904 the McMullen Bros., a new coal concern, shipped their first coal from an opening in the "Blubaugh" or "Brookville" seam of coal. At this point the "Blubaugh" coal seems better than at any other place yet developed. While the mine is not yet driven far enough in to secure the regular height of the coal, yet a high quality of output is being secured. With this, as in all other operations, particularly in the smaller veins, the great difficulty is to keep the coal clean; when some method is evolved for freeing low veins of impurities at less expense, the problem of mining the smaller seams will have been solved.

This company has an inclined plane about 1,900 feet long; a tramway about 2,000 feet long extends to the opening. As yet not enough men are employed to bring this mine under the provisions of the mining law. Shipments are made over the Cumberland & Pennsylvania Railroad.

CUMBERLAND BASIN COAL COMPANY.

The Cumberland Basin Coal Company, whose mines are situated at Barrelville, about eight miles from Cumberland, along the Cumberland & Pennsylvania Railroad, suspended operations June, 1904. The only time their mines were working was upon the occasion of my first visit, May 5, 1904. This company worked what is known as the "Parker" or "Clarion" seam, situated about thirty feet above the horizon of the "Blubaugh" or "Brookville" coal vein, but unlike that coal, is generally uniform in character. Very few men worked in the mine when I inspected it, and since then it has been idle. A small locomotive owned by the company, operates over a branch line, which serves also to ship the coal from the Georges Creek Bald Knob Coal Company's mine, by a "switchback," over the Cumberland & Pennsylvania Railroad. The Cumberland Basin Company's mine has two openings, known as "Stafford" and "McGlone."

GEORGES CREEK BALD KNOB COAL COMPANY.

Jerry Wiland, Supt. and Mine Foreman.

This operation is situated about two miles north of Mt. Savage, and is what was known as the Brailer property. It is the most northerly outcropping of the "Big Vein" and not as free from impurities as this famous coal further south.

There are three openings here, and the development work is among the best in the region. A tramroad about two miles in length is used to convey the coal in the mine cars to the head of the plane, by means of a locomotive. Thence the cars are lowered down the plane, about half a mile to the dump, which is across the State line in Pennsylvania, and there shipment is made via the "switchback" on the Wellersburg branch, to the Cumberland & Pennsylvania Railroad, back in the State.

Ventilation in this operation, by means of a furnace, gives entire satisfaction at present; the area opened is yet small. On a recent inspection the following ventilation pressure was found:

Where Measured.	Cubic feet air.	Number Employees	Air per man
Intake to "first right,"..................	5,280	25	211

All miners and laborers are supplied with this current.

Return to furnace, 6,360 cubic feet per minute.

Scales in good condition.

General conditions of roads and drainage, good.

MIDLAND MINING COMPANY.

W. A. Somerville, Supt.

ENTERPRISE MINE.

John Askey, Mine Foreman.

The Enterprise mine of this company is about one-fourth mile east of Midland, on a branch of the C. & P. Railroad. It is on the east side of the old drift of "Ocean mine," the first of the Consolidation Coal Company's mines of that name. This mine was thought to have been worked out years ago, but the Midland Mining Company secured a lease of the old workings about 1900, their first shipments being made in January of 1901, and they are working at present, with prospects for a good many years. The most of their mining runs down grade " to the dip," making it rather expensive coal to mine. At one opening, however, they have a slope, from which they haul the coal by a stationary engine, with a rope system. The system was installed in September, 1904—a 75-horse-power Connelsville Mfg. Co. engine and hoist—and has about doubled the output of the mine.

Ventilation of Enterprise mine is generally fair, having to depend on natural means and whatever ventilation works over the old workings from the small fan used at Ocean No. 1, by the Consolidation Coal Company. About fifty men are employed.

TRIMBLE MINE.

J. W. Stevens, Mine Foreman.

This company's Trimble mine is situated between Morantown and Mt. Savage, at the extreme eastern point where the "Big Vein" exists. This mine has been embarrassed by "faults" or disturbances, being on the edge of the coal stratum, where the work of ages seems incomplete. It is the "tail-out" of the Big Vein. Partly on account of this fact, ventilation has been generally very poor. Hardly ever are men enough employed to bring the mine under the provisions of the mining law. At my last visit this mine was much better ventilated, an air shaft having been sunk. Shipments are made over the C. & P. R. R., with an incline plane, and tramroads leading to the three different openings of the mine.

NEW YORK MINING COMPANY.

Henry Shriver, Superintendent. John Sullivan, Mine Foreman.

UNION MINE NO. 2.

Union Mine No. 2, of the New York Mining Company, is one of the "big mines" of the region, employing about 450 men, miners and laborers. It occupies nearly the extreme eastern outcrop of the Big Vein. The mine is a drift, operated on the double entry system, varied in places where very heavy faults have been encountered, the rock at times cutting out the coal entirely. This rock, which lies in the center of the coal stratum, is peculiar to the upper end or eastern portion of the Georges Creek field, and seems to thicken and the coal become thinner as the outcrop is neared. Mining is frequently highly dangerous, because of the great height—often 12 to 14 feet; and only by the greatest care on the miners' part, and constant attention and watchfulness from the mine foreman, are accidents kept at the low rate generally maintained.

Ventilation is furnished by two fans, to the right and left sides of the mine. This peculiar method deserves particular description. There are two openings, one upon the right and one the left side of the mine. Beside these are two secondary openings, serving as "intakes" from the fans. The right "intake" conducts the ventilating current to the five right headings, of which Nos. 2, 3, 4, 5 and 9 are now being worked. The 9th and 10th being close to the surface, when pillaring began constantly caved clear through to the surface, making plenty of outlets and insuring a good supply of fresh air at all times. Coal of good quality occurs here beneath six feet of covering. The left side of the mine is much the same as the right, there being ten "lefts" off the main heading or haulage road. This haulage road is driven clear through the mountain, and serves as an airshaft in the winter time. "Faults" are more frequent to the left side, coal is harder, and a greater amount of powder is used in blasting. The headings are longer—consequently harder to ventilate; but at no time have I found the air current below the law's requirements, except in one heading, the "fifth." That is a spur, extending much farther than it was thought any of the headings on the left would go.

Miners often think there is not the amount of air required by law, in a heading, because smoke does not clear; but while blasting is done at any hour of the day, and sometimes three and four blasts for one carload of coal, a much greater volume of air current would hardly remove the heavy powder smoke, which is almost the same weight as the air. The excellent condition of the roads and drainage in this mine is highly creditable to the management, considering the unusual quantity of refuse accumulating in mining their coal.

This is an average inspection during the year:

Where Measured.	Cubic feet air.	Number Employees.	Air per man.
Intake from fan, right side	23,435	119	197
Intake to second right, slant and third right	9,000	28	321
Outlet, 4th, Intake 5th, right	6,864	12	327
Intake, 9th right slant	7,280	60	121
Outlet, 10th right	9,310	10	931
Natural ventilation in left side, being winte	r time.	Fan not	running.
Inside cut through, 1st left	5,135	42	122
Inside cut-through, 2nd left	6,175	55	112
Inside cut-through, 3rd left	2,850	25	114
Inside cut-through, 4th left	4,625	17	278
Inside cut-through, 5th left	1,950	27	72
Inside cut-through, 6th left	2,700	4	675
Inside cut-through, 7th left	8,400	7	1,200
Inside cut-through, 8th left	2,925	26	112
Inside cut-through, 9th left	3,690	10	369

Haulage has been one of the difficult problems in this mine. The system now working promises to solve the question. During the year an electric haulage plant has been installed. The generating plant consists of one 150 K. W. 250 volt Goodman generator, belted to a 238 H. P. McEwen engine. Two 125 H. P. return tubular boilers furnish steam. The type of haulage here is known as the "third-rail" system; a rack-rail is placed a little to one side of the center of the track, which the sprocket wheel on the motor engages, giving a positive pulling force to the motor, not dependent upon the tractive force, as do other forms of motor. This permits successful operation upon the steep grades in the mine, where ordinary tractive hauling would fail completely, or not give economical results. The motor at this plant is operated over 1½ miles of track, the maximum grade surmounted being eight feet to the hundred. 45 mine cars weighing 2,040 pounds each have been handled in one trip, the average, however, being

30 cars. The motor easily hauls this load, travelling about 30 miles a day and giving the mine an output capacity of 1,300 to 1,400 tons. The haulage was installed in December, 1904. One motor is used on the left side of the mine, a second being kept in reserve. Another motor has been ordered, and the second motor, on its arrival, will be put in service on the right side of the mine, dispensing with horses in the mine, except for gathering purposes. Eighteen horses were displaced by the motor now working. Sufficient power is generated for lighting by electricity, and to operate the fans by motor. An automatic water purifying device, which has been installed, is new to the region. The water supply is gotten from a deep well; it contains 25 grains of scale-forming matter to the gallon, which would mean 20 to 30 pounds daily deposit in the boilers. By an ingenious device the matter is reduced to 4 grains to the gallon before entering the boilers, and all corrosive action counteracted. I consider the haulage system the safest employed in the region; the rack-rail is nearly covered by wooden railing, leaving only space for the sprocket wheels on the motor to fit in.

Acknowledgements are due Electrician Lieper P. Read, of the company, for information necessary to this description.

UNION MINING COMPANY.

Union Mine No. 1.

Henry Shriver, Superintendent. James Aldon, Mine Foreman.

Union Mine No. 1 is at the bottom of the "Y," on the C. & P. R. R., in the Big Vein, in the workings formerly made by the "New Hope" mine, a short distance from Frostburg.

Scarcely anything is working now, except drawing of "pillars." More abandoned workings surround this mine, perhaps, than any other in the region. On my first and second visits I found "black damp," or carbonic acid gas in large quantities, particularly in what is known as the "Top of the Plane." Many days the miners were forced to go home, and when they did work, it was with great prejudice to their health. The management went to work on the matter, and on my next visit a gratifying improvement appeared in the ventilation. At no time since have I found cause for complaint. At this mine, as in many others, the constant failure of drivers and miners to close check-doors they have passed through, affects the ventilation, while throwing themselves liable to arrest, whenever evidence to convict them is obtainable.

About 241 miners and laborers are employed, part of the men working at night.

This is a report of ventilation in the mine:

Where Measured.	Cubic feet air.	Number Employees.	Air per man.
Intake to straight heading................	10,800	27	400
Intake to 1st cross........................	7,980	18	443
Intake to top of plane..................	9,350	21	445
Intake from fan...........................	29,160	117	249
Outlet of No. 1 slant.....................	84,200	8	525
Intake to 14th slant......................	9,840	10	984
No air reading in "short heading;" ventilation good, but not confined enough to measure...............................		18	
No air reading in 1st right; ventilation good, but not confined enough to measure.....		18	

This mine has been forced to reduce its number of miners during the year, because of a scarcity of working places; but this may be only for a time, until they have more room.

PIEDMONT & GEORGES CREEK COAL COMPANY.

WASHINGTON MINE NO. 1.

J. S. Brophy, General Manager. Martin Condry, Mine Foreman.

Washington No. 1, formerly called the "old Washington Hollow mine," is located on the Eckhart branch of the C. & P. R. R. There are three openings, all working coal which was abandoned as worked out, years ago, before modern mining methods were applied in Maryland. This coal was thought to be lost in the days when coal companies did not appreciate the economic proposition, that good ventilation is essential to profitable mining. Thousands upon thousands of tons of coal have been lost to this region and to the wealth of the State by careless and indifferent methods of ventilation, and the laws for which the miners have always cried, have resulted in the mining of coal to-day that 20 years ago would have been simply abandoned and some other point taken, where the inefficient ventilating means would get some measure of output. To this kind of mining Washington No. 1 owes its existence; nothing but abandoned "stumps" and "pillars" being in the mine; and it could not be operated to-day for the deadly "black damp" were not the mine between the Hoffman and Eckhart mines. The fans of these two mines keep the old workings sufficiently free from the "damp" to enable this company to work under generally fair conditions.

The law is not obeyed at this mine, nor in any mine of this character. The company does all in its power, it is true, to aid the measure of ventilation gotten from Hoffman and Eckhart's ventilating systems, but the facts already stated as to the sort of coal they are mining show the impracticability of constructing air courses and conducting the air currents around the working places as the law requires. Any time that I could see anything to improve conditions on my visits, the company has been prompt in applying the suggestions. The grit and enterprise of this concern is to be applauded, since from most adverse conditions they bring the means of support for many miners and their families, with profit to the community and State; to apply to them the strict letter of the law would close them up, and this would be a public calamity, not a public good.

The coal lies mostly to the dip from Mine No. 1, or the middle mine, and the question of haulage is serious. Were the company able to drive their places with any regularity, rope or electric haulage could be used; but it is so "cut up" that this is almost impossible.

About 80 miners and laborers are employed.

WASHINGTON MINE NO. 2.

J. S. Brophy, General Manager. Philip Brown, Mine Foreman.

What was known as the "Old Aetna Mine" is now "Washington No. 2," of the Piedmont & Georges Creek Coal Company; it is on the Eckhart branch of the C. & P. R. R. The Big Vein is about worked out, and like Washington No. 1, the mine is in coal that was abandoned. Conditions here are generally good. The "Tyson," or upper mine, is at the top of an inclined plane—and is the largest operation in this coal in the upper end of the region. It averages about 3½ feet in thickness, and is very uniform in height. The ventilation is by a blowing fan, and is good at all times. The greatest difficulty met with is disposal of water. The mine is toward the dip of the coal, and the water met with in mining runs in the way. The company has driven a couple of bore holes down to the big vein, beneath, to take off the water.

This is an average inspection during the year:

Where Measured.	Cubic feet air.	Number Employees.	Air per man.
Intake from fan	21,120	52	406
Inside cut in 1st left, 1st south	5,120	3	1,707
Inside cut for 5, 7 and 8 lefts	5,800	6	967
Inside cut, 1st north, 2nd left	1,875	4	469
Inside cut, 4th left	5,775	8	722
Inside main heading	15,375	12	1,281
Inside straight heading	3,060	7	437
Outlet at mouth of lower mine	10,700		

About 70 miners and laborers are employed here, and conditions are generally good.

WASHINGTON MINE NO. 3.

M. J. Fahey, Superintendent. John Fahey, Mine Foreman.

This operation is in the six foot, or "Davis" coal, geologically known as the "Lower Kittanning," and is located at Westernport, on the west bank of Georges Creek, shipping on the C. & P. Railroad. Since this company has taken hold, the mine has been prosperous; a demonstration of the benefits following observance of the mining laws; the new owners go even further than the letter of the law, and what was practically a failure under the former holders is now, through up-to-date methods, one of the most profitable and best regulated mines in the region.

The problem of haulage is beginning to make trouble here, as the mine is constantly growing larger and getting farther from the dump; the economic side of putting the coal in the railroad cars must soon be met. I have noticed a little combustible gas in one or two of the headings of this mine, which is, I believe, "marsh gas," or carburetted hydrogen. If it comes off the coal in sufficient quantities to become dangerous, must be treated with the greatest care and caution. I am not among those who believe a catastrophe is needed before precautions should be taken to secure safety. The mine foreman and miners are taking due care not to run into a "pot" of this gas, which if mixed in certain quantities with air is highly explosive. Wherever this gas generates, too much care cannot be exercised.

This is an average inspection report at this mine:

Where Measured.	Cubic feet air.	Number Employees.	Air per man.
Intake at the fan	31,050	119	261
Inside cut, 1st right	2,550	6	425
Outlet of "1½ right"	7,920	13	609
Inside cut in 3rd right	1,800	15	120
Inside cut in 5th right	6,050	12	504
Inside cut in 6th right	5,220	10	522
Outlet of 7th right, and main heading	3,372	22	153
Outlet of 7th left	2,450	8	306
Intake to 5th left	3,142	24	131
Outlets from old and new openings	20,270		

As will be observed, the mine is very well ventilated. This company contemplates extensive improvements in the near future; have now made another opening that will greatly help their haulage, when their dump is placed.

CONSOLIDATION COAL COMPANY.

J. C. Brydon, General Superintendent.

Philip W. McMahon, Mine Foreman.

Ocean Mine No. 1.

Ocean Mine No. 1, located at Ocean, about one-half mile north of Midland, on the C. & P. Railroad, is the second largest operation in the State; its output often reaching as high as 2,500 tons a day. It is entered by a slope, and is worked on the double entry system; but on account of the trouble encountered with water years ago, the mine has been driven somewhat at haphazard. At that time Ocean mine was the lowest in elevation, operated in the "Basin," of the Big Vein, and as consequence the company was greatly troubled with the water seeping in from all other workings. Then the company drove what is known as the "Tunnel," an excavation at a point where it was thought it would reach the coal levels, about one-half mile south of the slope of the mine. This, by the aid of pumps, has been the means of draining away most of the water, and as the excavations proceeded to the north, and connected with "Hoffman," or "Ocean No. 3," that mine's drainage system was utilized to remove water not readily sent out the tunnel. The slope has been in operation since 1881, and commands a vast expanse both of worked-out and unworked territory.

It is strange that mine officials appear to fail in appreciation of the scope and size of an operation of this character until confronted with a problem in ventilation or drainage entailing such heavy expense that their company frequently hesitates to incur the cost; when if the obvious remedies had been applied properly, and when needed, the actual outlay would neither have been so great nor so annoying. Bratticing should have been properly built, and then kept air-tight; ditches made large enough, and kept properly cleaned out; so would loss of coal and time be avoided.

In some parts of this mine ventilation has not been so good as it should be, and in one part of the works I had not been able to get the legally required amount of air until my last visit. In part, this may be accounted for by the difficulties formerly mentioned; some of these old workings being between the fans and working portions of the mine, and as a deal of bratticing is required, it sometimes is neglected and allowed to become worn out. The company shows a purpose to observe the law to the letter, and furnishes plenty of ventilating power, there being two fans installed. One, of sixteen feet diameter, is at the "Old Lye," and the other, a splendid machine of 25 feet diameter, ventilates the "bottom" of the mine. Both fans were formerly worked by "exhaust," but at my request are now reversed, under the present Superintendent, J. C. Brydon, and the result has been highly gratifying, as has been my observation of practical results wherever attempted; the blowing method operating better than the exhaust, especially where "black damp" is met with, or where the faces working are a great distance from the fan.

This table shows conditions before the change:

Where Measured.	Cubic feet air.	Number Employees.	Air per man.
Return to fan, "Old Lye"	29,520	85	347
Intake to Buffalo heading	3,402	40	85
Outlet of sharp's heading	5,075	38	134
Outlet of "New Lye"	3,190	28	114
Outlet of Creegan, and Puffs hdgs	4,620	26	178
Outlet of Cullen's and T Rail, and Intake to Williams' hdgs	20,160	90	224
Outlet of 3rd right	6,720	50	134
Welch's "Across the Sea," no air reading	......	40	...
Outlet of Miller's	......	19	...
Outlet of Carney's	......	20	...
Outlet of Loar's	......	45	...
Outlet of Keenan's, dip heading	6,525	6	1,087
Outlet of Gibson's, dip heading	12,420	20	621
Outlet of straight and Hawkins hdgs	9,360	11	851
Straight Slope and 7th right	......	20	...
Return to large fan	111,150	375	296

One familiar with this mine would understand its condition from a perusal of this inspection, made Oct. 13, 14 and 17, 1904. The failure to get air readings, indicated at several points, does not prove that no air was circulating, but does show that not enough passed to cause the anemometer to register; consequently not enough to meet the requirements of the law.

This table shows conditions since the change:

Where Measured.	Cubic feet air.	Number Employees.	Air per man.
Intake to "Old Lye"	26,380	71	385
Intake to Buffalo	7,600	35	217
Intake to Straight, Sharps and 50 headings, "Old Lye"	5,200	36	144
Intake from large fan	114,000	374	305
Intake to "New Lye"	9,720	18	540
Intake to 3rd right, Williams and Richardson's, "Q. X."	16,910	90	188
Intake to Cullen's	17,910	8	2,238
Intake to Keenan's, in dip headings	4,640	12	386
Intake to Gibson's	3,780	9	420
Intake to Straight and Hawkins	11,560	53	218
Intake to workings "Across the Sea"	19,840	......	..
Intake to slant in Welch's headings	4,830	24	201
Outlet of Miller's heading	3,640	19	192
Outlet of Carney's	4,717	23	205
Intake to upper end of Loar's	1,040	8	130
Outlet of lower end of Loar's	11,700	39	300
Intake to Pick and Machine headings, straight slope	10,640	41	260
Intake to all inside workings, straight slope	5,400	18	300

At no time during the year, previously, has the condition of this mine been so good as this inspection shows. There are some parts of the "Old Lye" that were always idle in the summer time, because the exhaust fan pulled the "black damp" in on the workmen; the present method keeps the damp back, enabling the miners to work, and the company to get coal that might otherwise be lost. There are at present three compressed air motors at this mine, and the rest of the hauling is done by horses and mules. The mine-cars are gathered to the "slope," and hauled thence to the surface by a stationary engine and rope. Mining machines were first introduced in this mine for this region, and a few are yet in use.

Nearly 600 miners and laborers are employed, and as it is a large operation, probably it will last for years to come. The roads in this mine are in splendid condition, generally speaking; the management deserves credit for its enterprise and care in this regard.

OCEAN MINE No. 2.

James Weston, Mine Foreman.

Ocean No. 2 is situated at the "old Consolidation," about one-half mile west of Frostburg. It is in the "Tyson" vein, and is entirely devoted to production of fuel coal for the town of Frostburg and surroundings. I have not visited this mine very often, as conditions were good and whenever I did visit there were not miners enough employed to bring it under the provisions of the mining law. The old "Frost" mine, which had been used to coal the C. & P. R. R. engines, has been suspended for the present, and work has been stopped at the west end, where fuel coal has been mined. Considerable coal remains in the "Frost" mine (Big Vein) but it thought a greater development of the Tyson vein, a large area of which is untouched, is desired.

OCEAN MINE No. 3.

Joseph B. Thomas, Mine Foreman.

Ocean Mine No. 3, or "Hoffman Mine," of the Consolidation Coal Company, is another of the group of large mines toward the upper end of the valley, and is the oldest now shipping coal in the State. It is situated at Hoffman, a small mining town, about two and one-half miles east of Frostburg, and ships its product over the Eckhart branch of the C. & P. Railroad. This is a slope mine, the longest in the State, and probably the longest in the country—over six thousand feet in length. Ventilation is provided by a blowing fan, twenty feet in diameter, at the top of the slope, and discharges the air into the "air course," parallel with the haulage or main slope. The present workings of this mine lie mainly beyond that which already has been worked out, and as in all other old mines some trouble is caused by faulty or leaky brattices; this is especially noticeable here because the power is little more than needed; and any waste is immediately noticed in the ventilation. The fan is always run at high velocity, and for that reason the pressure is greater on the brattices. In some parts of the mine this fan drives the air over three miles, the current never failing at any inspection to be up to standard at these points. In a portion of this mine—the south side—the law is not being observed; in the "3rd cross" some old workings formerly abandoned are now being reopened, and these places are so cut up that air courses cannot be maintained in them. The management is giving the miners employed in these places cars as quickly as they can load them; keeping doors and brattices up wherever apparent that any good can be accomplished; and in general doing all they can to care for the 20 or 25 miners employed at the work of saving this coal. The rest of the mine is now well ventilated, although several times during the year I was obliged to call the attention of the management to the law relating to the driving of cut-throughs. In places the covering of earth above the coal is heavier than elsewhere in the region; and the company did not obey the cut-through law as rigidly as they might. The provisions of the law, however, are now being carried out, and I believe will be obeyed in future. The question of drainage is a serious one at Hoffman mine—the most seriously troubled mine in the region. For years a pumping station has been maintained about two miles south of Frostburg, connecting with this mine, located along the C. & P. R. R. Here is a power-house, furnishing power for compressed air motors, that do nearly all the work in the mine, but few mules or horses being employed. Power is also generated for the massive pumps, with a capacity of over 8,000 gallons a minute, which raise all the water accumulated in the mine to the surface. The pumps are set at the foot of a shaft 285 feet in depth, at the top of which the power-house is erected. At this point is the "basin," or lowest point reached by the Big Vein coal stratum, in the region. About eighteen months ago a gigantic project was started to solve this problem, and when completed will drain all the mines about the basin. It is a tunnel, starting from a point near Clarysville, far below the level of the Big Vein, and being driven on water level into the bottom of Hoffman mine. It is being worked from four points—at the mouth, near Clarysville; both ways from the foot of a shaft driven in Hoffman slope, and from the bottom of Hoffman slope. Work is being pushed vigorously, and the company expects to have it completed in about two years from the commencement. When finished, it should be an improvement of great economic value to the company.

This is an average inspection of Hoffman mine during the year:

Where Measured.	Cubic feet air.	Number Employees.	Air per man.
Intake from fan	62,580		
Intake to south side	2,010	14	144
Intake to second and third cross	10,645	67	156
Intake to Tippens and1st cross	8,160	62	131
Intake to Scovie's heading	4,200	21	200
Intake to 1st cross in Klondyke	2,125	21	101
Intake to 2nd cross in Klondyke	1,950	17	115
Intake to 3rd cross in Klondyke	1,680	12	140
Intake to 4th cross in Klondyke	2,720	19	143
Intake to 5th cross in Klondyke	2,080	20	104

This inspection shows just about enough circulation to furnish good ventilation, which is the condition I found at each visit after the first. This winter there has been opened a drift some distance from the slope. About thirty men are in this mine, conditions are generally good, with ventilation at present by natural means, but the management informs me that in the near future they intend putting in a fan.

At the pumping shaft attached to Hoffman mine is a convenience of great comfort to the miners—a modern bathroom, with bathtubs of good quality, hot and cold water, and the room heated by steam. Racks with steam heat are provided, and an attendant sees that the miners' clothes are dried carefully every day. Each man has a locker for his clothing. There is more wet work in this mine than anywhere else in the region; the change of dry clothing on leaving the mine guards the health of many a tired man.

OCEAN MINE NO. 3½.

Daniel Krapf and A. W. Luther, Mine Foremen.

The opening at Eckhart, or Ocean No. 3½, in the Tyson coal, has been abandoned, for the present. The coal seams locally to be full of faults, interferences of foreign matter with the coal stratum. This occurs with such frequency that the company has abandoned it temporarily. I made but one visit here, and then found conditions good.

Eckhart mine, or "slope," situated at Eckhart Mines, a flourishing town at the terminus of the Eckhart branch of the C. & P. R. R., is again being put in readiness for shipping coal. No shipments have been made as yet, but a force of men is engaged in timbering and cleaning up, preparatory to doing so. It is said that a large amount of coal yet remains in this mine, and local residents are greatly pleased at the prospect of its again becoming one of the famous group of producing mines. The Big Vein in Eckhart is said to have been the easiest worked in the region. 27 laborers are now employed putting the mine in operating shape.

OCEAN MINE NO. 7.

Jonathan Jenkins, Mine Foreman.

Ocean Mine No. 7, or Klondyke, as it is locally named, is easily the largest operation in the State, and perhaps the largest in the world. Its daily output ranges about 4,000 tons, from two openings—a drift mine, in which about 100 miners work, and a slope, known locally as the "arch mine." This has but one opening, but in a short distance it branches into the "Old Slope," the

"Midway," and the "New Slope." This slope is a large operation in itself, with five "lefts" and five "rights," or "Lifts," as some call them. Most of these lefts and rights have one or more cross or branch headings, and they employ over 300 miners. In the "Midway" are about 150 miners, and in the "Old Slope" nearly 100. This is an ideal mine and has the most complete and up-to-date system of ventilation in the region, beginning at the fan, which is also a blower, of 25 feet in diameter. The intake is large, and thence into the mine, every brattice of any importance is of brick and cement, air splits are made by means of "overcasts," of the same material, and every effort is made to avoid any mistakes that would shorten the life of the mine. The air system is so arranged by regulators that at any time, should a great influx of "black damp" appear, the entire power of the fan can be turned on that part of the mine, and in a very short time drive out every trace of the poisonous gas. In any part of this mine I can secure air readings more than sufficient for the men working in the section. With big operations like this, an accident is liable to happen at any time to the ventilating system, but I can say that aside from accidents the management is carrying out every provision of the mining law.

The upper or new mine is a drift, and is ventilated by a 16 foot fan, also blowing. More than enough air has been furnished at every inspection.

There are a couple of planes in this mine, the coal being very much inclined, and sometimes the rooms are very steep, the headings crossing the grade and the rooms being driven against the "pitch." Drainage and roads are good. The older operations, lying lower in the coal, give Ocean No. 7 an advantage in drainage. The tunnel below Ocean No. 1 takes most of their water. Two small locomotives are used to haul the empty cars from the dump to the mouth of the "slope," and the bottom of the planes in the new mine.

This is an average inspection of the mine during the year:

Where Measured.	Cubic feet air.	Number Employees.	Air per man.
Intake from large fan	144,846	517	280
Intake to 2nd left, 1st cross new slope	3,860	34	114
Intake to 3rd cross, new slope	2,175	18	121
Intake to 2nd right, 1st cross, new slope	3,782	28	142
Intake to 3rd left, 1st cross, new slope	4,040	41	99
Intake to 3rd left, 3rd cross, new slope	2,100	17	124
Intake 3rd right, 1st cross, new slope	2,525	25	101
Inside cut, third right, straight, new slope	1,856	18	103
Intake to 4th left, 1st cross, new slope	3,560	37	96
Intake to 4th right, 1st cross, new slope	4,480	45	100
Intake to 5th left, 1st cross, new slope	1,515	6	252
Intake to 5th right, straight, new slope	1,415	6	236
Intake to 2nd right, 1st cross, middle slope	4,432	39	114
Intake to 3rd right, 1st cross, middle slope	5,375	54	100
Intake to 3rd right, 2nd cross, middle slope	2,360	3	786
Intake to 3rd straight, middle slope	2,080	17	122
Intake ot 4th right, 1st cross, middle slope	4,275	39	110
Intake to 1st right, old slope	2,000	4	500
Intake to 2nd right, old slope	8,440	19	444
Intake to 3rd right, old slope	3,780	15	252
Intake to 4th right, old slope	9,080	38	239
Intake from small fan, new mine	63,000	133	446
Intake to 1st right heading, new slope	11,200	35	320
Intake to straight heading, new slope	6,710	35	192
Intake to 1st left, new slope	9,540	24	397

In the Tyson seam quite an extensive opening has been made; and in addition to supplying fuel for the boilers at the mine, it is now being shipped. The coal is very good in quality, and some miners are working it about as readily as the Big Vein. This operation is ventilated by a small fan, of "Stine" make, which supplies plenty of air for the present, but will soon need more power to force air enough into the small areas of the thin vein.

With over 800 employees at these mines, it is a large undertaking for one man to supervise, and too much for personal direction. The mine foreman has four or five assistants. More machine coal is mined than from any other mine, and it is remarkable that accidents are so infrequent, with the high coal, the large space of roof left untimbered while cutting, and even sometimes while loading the coal cut and ready in a place. Coal is often blasted here during the day, and often the places left filled with smoke; then it is said that there is not air ventilation up to legal standard; but the fact is that 100 feet per man per minute will not remove powder smoke, where indiscriminate blasting is done, and if smoke is to be kept out, there must either be less blasting, or it must be at stated times, by both men and companies.

OCEAN MINE NO. 8.

Charles Latham, Mine Foreman.

At Midland, Ocean Mine No. 8 is located on a side track or back switch, from the C. & P. R. R. The mine was opened to work the coal lying between Ocean Mine No. 1 and the Georges Creek Coal & Iron Company's property, bordering on their "Cutter Mine," or "Engineside." The most of this mine's product is pick mined, and it is beyond doubt one of the best mines in the region from a workman's standpoint. The coal is good, the mine is convenient, not being very extensive, and conditions as to ventilation and drainage are first-class. One machine is used in the mine, and is able to cut all the places where it is practicable to use the "puncher." Drainage and roads are all that could be desired. The mine is ventilated from Ocean No. 1, and this is an average inspection report:

Where Measured.	Cubic feet air.	Number Employees.	Air per man.
Intake at mouth of mine..................	21,420	75	285

The current is carried around the places, and finds its way into Ocean No. 1. The haulage is by a small compressed air motor, on the main heading, and mules on the cross headings to gather the cars.

OCEAN MINE NO. 9.

Joseph Radcliffe, Mine Foreman.

This operation is located about two miles east of Frostburg, and is on the main line of the C. & P. R. R. It is opened in the "Tyson vein," with two good openings, the ventilation furnished by a large fan, and about the best "Tyson" around that locality. It is claimed to be one of the best places to work in the region, although small vein coal. The coal mined is almost entirely used by the railroad for coaling its engines. Another opening is being made nearer Frostburg, and a side track put in. A dump will be built here, and the output of one of the present openings, together with the new opening, is to be shipped; one opening being sufficient to supply the locomotives on the railroad with fuel. About thirty men are employed at this mine, and conditions are generally good. The development of the Tyson coal has been larger here than anywhere else in the upper part of the region, and it has established the fact that the Tyson vein is of great commercial value. It lies about 100 feet above the Big Vein, and is sometimes, though not often, affected by the removal of the coal below.

H. & W. A. HITCHINS COAL COMPANY.

John Malloy, Mine Foreman.

This company was formed about six years ago, and is now working some of the abandoned coal, lost on Georges Creek when ventilation was a secondary consideration. The mine is located on the C. & P. R. R., close to the old Frost mines. A long plane extends from the dump up to a tramroad, at the end of which is another plane and a short tramway, to the opening. This opening, called "No. 3," is rapidly being worked out. "No. 2" opening is at the foot of the second plane, and promises to be quite a large operation. At present they are driving across, into old workings, making places for the men as they go along. The coal is the highest quality of Big Vein, but crossing the old workings, cleaning up and timbering the old places makes it very expensive mining at present. The mines employ about 45 men; considering the character of the work, ventilation is all that could be expected.

BARTON & GEORGES CREEK VALLEY COAL COMPANY.

Carlos Mine.

A. Hitchens, Superintendent.

Mine Foremen.

The Barton and Georges Creek Valley Coal Company have their mines at Carlos, on the Carlos branch of the C. & P. R. R. The company has been mining the Big Vein, from three openings.

The lower or "old mine" is worked out. The company is making commendable efforts to observe the mining laws. Cut-throughs are being driven at the required intervals. It may be noted that falls extending 80 to 100 feet have occurred in narrow work—headings—in this mine, yet no trouble has been found with cut-throughs driven between rooms 13 to 15 feet wide. Apparently, falls are from purely local causes, and do not indicate any structural weakness in a mine, such as would render complete compliance with the law as to cut-throughs unsafe.

The ventilation at the slope is furnished by a 16-foot fan, and at no time during the year just ended has there been any cause for complaint. The miners are permitted to blast their coal at this operation, after preparing it, and they blast it at any time of day. For that reason the smoke from blasts is thick at times.

The average inspection of the mine follows:

Where Measured.	Cubic feet air.	Number Employees.	Air per man.
Intake at fan	41,662	143	291
Inside cut-through, 1st left	8,075	58	139
Intake to No. 1 slant, 1st left	8,990	25	360
Inside cut-through, 1st right	11,250	39	299
Outlet of new mine	9,165	21	436
Outlet of slope	12,150		

Roads and drainage are in good condition here, and the output is hauled up the slope by a stationary engine; gathering is done by drivers, with horses, no mules being used. A very good bathroom is provided in the powerhouse for the fan, where miners may change their clothing and take a bath before going home, hot and cold water being provided. All in all, this is one of the best of the good places to work in the region.

BOWERY COAL COMPANY.

Uriah Jones, Superintendent.

This is a company recently organized, to open a part of the old "Bowery Furnace" mine, and the "Johnson" mine. It is, like many other operations here, going after coal once given up for lost. Only a few men are working at present, putting the mine in readiness for shipping. They will ship over what is known as the Midlothian branch of the C. & P. R. R. The coal is Big Vein.

This company has another operation, in the Tyson coal, close to Frostburg, worked exclusively for fuel, for local trade. Only three or four men are employed, working mostly during the winter. Last year they mined 2,200 tons.

BRADDOCK COAL COMPANY.

F. C. Harwood, Superintendent.

PINE CITY MINE NO. 1.

Joseph Cutter, Mine Foreman.

What was the "Rock Vein Coal Company" is now the Braddock Coal Company, the company being re-organized some time ago.

This company has one mine, Pine City, No. 1, located about three miles east of Frostburg, in the extreme eastern section, where the coal crops out. There is some doubt as to what vein of coal is worked; being variously assigned as the Barton four foot, and the Thomas three foot seams. It is a very good grade of coal, and no doubt can be mined with profit. There are two openings, but a short distance from one another. The ventilation has not been good at any time during the year, very little attention having been paid to ventilation since the mine was first opened. On my last visit more had been done toward putting up brattices and making airways, than at any time previous. I have recommended that a fan be put in here, and understand that the company intend making this improvement at once. The coal is conveyed from this plant to the railroad by a novel means—the only one of its kind in the region, and deserving of some notice. The coal is dumped from the miners' cars into a chute or bin, close to the mouth of the mine, and a stationary engine of 33 horsepower furnishes the power to operate a cable, to which is attached 12, and sometimes 14 buckets, with a capacity of 10.00 cwt. each, which are suspended on an aerial cable. There are two cables; one is stationary, and the bucket has a trolley, fitted to the stationary cable; the bucket is attached to the other until it reaches the terminal at the mine, when by an automatic arrangement it is released from the rope, and rests at the chute until loaded.

When the next bucket comes along the loaded bucket is started automatically on its journey to the bins at the railroad, and when the bins are reached, dumped, and settled back on a platform, until the next load arrives and starts it off on the return trip down the "empty" side of the conveyor.

The bin at the mine has a capacity of 100 tons, and that at the railroad 250 tons. The cables are supported by five buttresses between the two bins. For a limited output this means of conveyance has some things to recommend it, but of course the output must necessarily be small and to some extent uncertain, for the crippling of any part of the system will stop the conveyor.

The company ships on the Eckhart branch of the C. & P., and about 20 miners and laborers are employed.

WACHOVIA COAL COMPANY.

MONTELL MINE.

Wm. H. McClune, Superintendent and Mine Foreman.

Montell tunnel was driven a good many years ago, and abandoned. It is supposed to enter the "Davis" or "Six-foot" seam, The present company was recently organized, and is making preparations for considerable development. They have a large area of coal, very little of which has been mined. Mining machines have been installed, of the puncher variety; during the present year an air-way has been constructed, in one side of the tunnel, which it is hoped may improve their ventilation, giving the air a return. A very fine dump, of the "Phillips Cross Over" make, with pole weights, has been constructed here, and good tracks laid. The mine is located about one mile east of Vale Summit, and ships over the Georges Creek & Cumberland Railroad.

At present about nine men are employed, not enough to bring the mine under the provisions of the mining laws.

GEORGES CREEK COAL AND IRON COMPANY.

R. L. Somerville, Superintendent.

MINES NO. 1 AND CUTTER, TYSON NOS. 16 AND 17.

Richard Spear, Mine Foreman.

Mines No. 1 and Cutter, or "Engineside," as they are familiarly known, are located near Lonaconing, on the C. & P. Railroad, and are among the old mines of the region, especially No. 1. Cutter mine is ventilated by a large exhaust fan, and at all my visits the air was good. At times I have found places too far ahead of the air—that is, cut-throughs not made every 105 feet, as required by law—but when I called the attention of the mine foreman to it, he promised that there should be no trouble on that score.

The following is an average inspection for the year:

Where Measured.	Cubic feet air.	Number Employees.	Air per man.
Intake at mouth of mine	19,845	70	284
Intake to Cutter heading	4,220	32	132
Intake to "Q. X." heading	7,875	12	656
Outlet of Peeles heading	8,250	19	434
Outlet of Blue heading	4,672	7	667
Return to fan	29,460		

Roads and drainage are generally good.

Mine No. 1 is about worked out, only a few men being mining coal. The Tyson vein, opened at this place some time ago, is being pushed vigorously, and it is proposed to make this the largest producing mine in the region in this vein. The company has built a power house at this plant that is a model. All work is to be done by electricity, and the power-house is amply equipped to supply all power needed for years to come. All haulage is to be done by electric motors. At present an electric motor only 29 inches high is being used to haul the mine cars from the openings to the dump, at the top of the conveyor. This conveyor is a new thing in this region. Instead of the old-time plane, this is a trough or sheet-iron lined chute, passing down the heavy grade from the bin at the mine mouth. Coal is let into this in small quantities from the bins, and pulled through by a constantly travelling endless rope, to which is attached plates, every three feet, about ten inches in diameter. At the lower terminal of the conveyor is a washery, also something new locally. A chute receives the coal, and it passes over a screen. The lumps go on to the railroad cars, and the slack is run into the washery, thoroughly cleaned of any impurities, and by a belt conveyor transferred into a long chute, whence it is deposited in the railroad cars, absolutely clean. This washed coal is mainly shipped in box cars, for smithing purposes.

The company's enterprise deserves commendation, and it is hoped that they may develop a new market for the Tyson coal. About 100 men are employed at the four mines—No. 1, Cutter, and Tyson Nos. 16 and 17.

NO. 3, OR PINE HILL MINE.

John Boyd, Mine Foreman.

Pine Hill Mine, or No. 3, is about halfway between Lonaconing and Midland, and ships over the C. & P. Railroad. An inclined plane conveys the coal from the mine down the mountainside to the dump, where it is placed on the railroad cars. The mine is a good one; ventilation is by natural means, but the cut-throughs and brattices are so closely watched that the ventilation is generally good all the year round. Another thing helps to keep the mine well aired—the grade inside is heavy; once the hill is dug through, the heading acts like an air-shaft, pulling to the highest point in the winter time, and to the lowest in the summer.

About thirty-five miners are employed.

MINE NO. 12.

Mine No. 12 is a short distance east of Pine Hill Mine, on the neighboring hill. It is a knob of coal, all to itself; and the company is getting it in readiness for making quite large shipments. Only six men were working here on the occasion of my visits, hence not enough to bring it under the law. A long inclined plane brings the coal to the Georges Creek and Cumberland R. R., on which they ship.

COLUMBIA, OR MINE NO. 9.

John Boyd, Foreman.

Columbia, or Mine No. 9, is located at Gilmore, and ships coal over the G. C. & C. R. R. This mine is opened in the workings of the old Midland mine, of the Hampshire & Baltimore Coal Company. The property was purchased by the Georges Creek Coal & Iron Company to enable them to get at some coal of their own that lies beyond this property. The mine is ventilated by natural means, and like "Pine Hill" brattices are kept well up, and with heavy inside grades, conditions as to ventilation are much the same.

About twenty-five miners are employed, and roads and drainage are always in good condition.

MINE NO. 10.

Mine No. 10, located at Midland, is an opening intended to get to the other side of the same hill in which "Columbia Mine" is working, to get some coal that cannot be reached from that mine. Not enough men to bring the mine under the law's provisions.

Conditions generally good.

NEW CENTRAL COAL COMPANY.

Duncan Sinclair, Superintendent.

KOONTZ MINE—BIG VEIN AND TYSON.

William Thompson, Mine Foreman.

The New Central Coal Company's Koontz mine is about two miles north of Lonaconing, shipping over the G. C. & C. R. R., a branch of which runs up to the mine. An inclined plane leads from the dump to the mine, whence the haulage is done by rope and stationary engine. This operation was very badly handled before the present management took it in charge. A "squeeze" and consequent great loss of coal was allowed to come upon the mine by carelessness. The effect of this is apparent in the mine to-day. The covering is very heavy here, and the coal not being taken out cleanly permitted the overlying strata to shift its weight always to the places that were being worked. At present they are beginning to be relieved of some of this trouble, the mine being now in the best condition I have seen it. From the causes mentioned there has been some very dangerous work in this mine, and too much credit cannot be given the management for their vigilance, nor to the miners for their skilful and painstaking methods in caring for their working places. Ventilation is furnished at this mine by a twenty-foot fan, and is generally very good. Under the former management little attention was paid to driving air-courses, and old workings surround the mine, the Georges Creek Coal and Iron Company's mines and the Consolidation Coal Company's mine No. 7 being adjoining. The fan is a "blower," and thus fights back the "black damp" from the old workings.

About 49,200 cubic feet of air is furnished at the intake of the large fan, to the ninety miners, making 546 cubic feet of air per man. Of course, not all this reaches the miners, but enough does so to keep the air generally pretty good.

The Tyson vein is one of the best in the region, the coal being very uniform and of good quality. The haulage is upon the "tail-rope" system, by a stationary engine; mules being used to gather the cars to the rope. Ventilation is also by a force fan, and at present is in very good shape. The fan is 12 feet in diameter, capable of supplying plenty of air for a much larger number of men than is employed.

This was the condition of the ventilation upon my last inspection:

Where Measured.	Cubic feet air.	Number Employees.	Air. per man
Intake from fan	16,320	25	653
Intake to first left	4,640	9	516
Inside cut-through in 1st right	7,020	7	1,003
Outlet at mouth of mine	13,440		

MARYLAND COAL COMPANY.

F. E. Brackett, Superintendent.

APPLETON MINE.

William Dodds, Mine Foreman.

Appleton Mine, of the Maryland Coal Company, is on the western hill, at Lonaconing, and is one of a group of mines that have long been opened, and some of which are worked out, only the Appleton and Kingsland mines remaining. Appleton mine is is many respects one of the best in the region, its roads and drainage being all that could be desired in a mine. This company merits special commendation for its practice of keeping a "square turn," or equal distribution of cars to the miners. All men, provided they can load them, get an equal number of mine-cars. An unequal turn, or discrimination in the distribution of cars between men in a coal mine, is often the source of great contention, arraying one man against another, because some miner, for some reason or other, and very often for no reason at all, but the carelessness of those having the distribution of the cars in charge, gets cars that properly should go to his neighbor. I should like to see all the companies as scrupulous about this matter as the Maryland Company.

The ventilation at this mine is furnished by an exhaust fan, sixteen feet in diameter, and supplies sufficient air, very often more than the law requires. This ventilation travels entirely over the air courses and headings, none going into rooms by means of cut-throughs as the law provides, because the company refuses to make the cut-throughs. Section 209 H of the mining law says: "It shall be the duty of the mine foreman to see that proper cut-throughs are made in all the rooms and pillars, at such distances apart as the mine inspector may deem requisite, not more than 35 yards in any instance, for the purpose of ventilation, etc." This, the company has not been doing, and when I approached its officers about it, they said their coal would not stand the necessary cut-throughs, being too soft in its nature, and faulty in its roof-coal. I have discussed the matter exhaustively with the Superintendent and other officials of this company, making several special trips to see them, but have failed to secure even a partial compliance with the law. At my visit in December, 1904, I requested that some effort be made to obey the law, since I had no discretion in the matter, but must under the law see the cut-throughs be made. I asked that cut-throughs be driven in the right side of the mine, which shows no sign of "squeeze," there being some evidence of weight in the left side of the mine. At parting, my understanding was that cut-throughs would be driven in the right side. The Superintendent claims that his understanding was, that one cut-through was to be driven, to show that the coal would not stand cutting. On my next visit, February 16, 1905, I found a cut-through, in room 5, of the 3rd right, 160 feet from the heading, doing no good whatever to the ventilation. The Superintendent sent me word a day or two after this to the effect that they had done all they agreed to do, but would drive another cut-through, closer to the pillaring, to show the effect sooner.

I concluded that only one course was left—to ask the courts to enforce the law; and accordingly swore out, before a Justice of the Peace, a warrant for the arrest of the mine foreman, charging violation of the section of the mining law above quoted. This case is still pending before the court, and I would not like to say anything that would in any way prejudice it; the matter of driving the cut-throughs, however, is of great importance; sufficient air for the miners working cannot be conducted up mining "rooms" 450 to 500 feet long, without being forced by cut-throughs. Nor is the company's contention as to the peculiarly bad quality of their roof good; in Carlos mine the heading fell about 100 feet, the entry being driven eight feet wide; while rooms, driven off this heading, 13 to 15 feet wide, have cut-throughs the same as at any other part of their mine. Perhaps the trouble is that the company does not leave sufficient pillars between their rooms. I have measured pillars 12 to 28 feet in thickness, and for a distance of nearly 500 feet—that is a very slim support for a mountain, with such a pitch as it is at this mine. It is little wonder the company has difficulty in getting some rooms driven up—they practically take out the pillars going up. Under some companies in this region pillars 100 feet in thickness are left between rooms, because of the great amount of cover. These companies drive their cut-throughs in compliance with the law.

There is an inclined plane in this mine, drivers with horses gathering the mine-cars left and right to the plane. At the bottom of the plane the cars are taken in charge by a small locomotive, and pulled to the dump, whence the coal is shipped over the G. C. & C. R. R.

An average inspection of the mine during the year follows:

Where Measured.	Cubic feet air.	Number Employees	Air per man.
Intake from the Manway	39,240		
Intake from the mouth of the mine	18,600		
Intake from the 2nd right	6,800	8	850
Outlet of 4th Intake, 3rd right	7,560	46	164
Outlet of 4th left and air-course	5,496	15	366
Outlet of 3rd left	4,975	27	184
Outlet of 2nd left	3,825	20	191
Return to the fan	59,150		

This report shows plenty of air travelling over the headings and in the air courses, but it is not carried as close to the miners by means of the cut-throughs as is required by the law, and is necessary for the maintenance of a healthful condition in the working places, where the miners are employed.

About 160 miners are employed in this mine.

PATTON MINE.

August Ricker, Mine Foreman.

This mine is a short distance west of Lonaconing, the farthest west the company is operating. It is rapidly being worked out, and before another annual report is made it is doubtful if Patton mine will be included as one of the mines shipping the famous Georges Creek coal. About 65 miners are now employed here, and conditions generally are good; there being no longer any lengthy rooms remaining in the mine. Ventilation is furnished by a pressure fan, which must be kept running at a very low rate, because of the contracted operations of the mine. This is the average condition during the year:

Where Measured.	Cubic feet air.	Number Employees.	Air per man.
Intake from fan	17,280	61	283

The air is carried around pretty well, to the 60 to 65 miners who are employed. Around the hill a short distance east of Patton mine is an opening in what is known as "crop coal;" in this mine are about 20 miners. Ventilation is natural, but when the coal is taken out the places generally fall to daylight, the cover being mostly light, so air is plentiful. Roads and drainage are always in good shape here, and the same system of equal distribution of cars prevails here, as at Appleton mine. An excellent system of haulage, by a stationary engine and rope, is used, shipping being over the G. C. & C. R. R.

LONACONING COAL COMPANY.

Shamrock Mine.

J. J. Dobbie, Superintendent. Thomas Keating, Mine Foreman.

"Shamrock" mine is on the G. C. & C. R. R., a short distance east of Lonaconing. I have made but two visits to this mine, it having been finished on the occasion of my last visit. About seventeen men were working at my first visit, under fair conditions. An inclined plane transported the coal from the mine's mouth to the dump. Some time in July the operation was abandoned, and since that time the company has not been operating in this State.

AMERICAN COAL COMPANY.

Jackson Mines.

Isaac Bradburn, Superintendent. John Peel, Mine Foreman.

A large number of openings distinguish this operation, on the eastern side of Lonaconing, along the mountainside, east and west of the dump. A tramroad extends around to Moscow Mine, of the Piedmont Coal Company, on the west side, and up "Coon Hollow," on the east. The openings from the west side are being rapidly worked out, except No. 5, where the largest opening under the company is located. Here a stationary engine, by means of a rope, hauls the coal outside. A locomotive is used on the tramroad to haul the coal both ways to the dump. It is quite large, for mine work, is both an economic and safe means of conveyance. No. 5 mine has most of the men in it. The mine is ventilated by a force fan, run at present at a very low rate of speed. It is one of the best fans in the region, and at one time the extent of

CALEDONIA MINE, BARTON.

David Williamson, Mine Foreman.

Caledonia Mine of the American Coal Company is located at Barton, and comprises operations both in the big vein and Tyson coal. Like many others in this region, the big vein is merely skirting around the hills for miles with a series of openings, by means of a tramroad and locomotive, hauling the coal to the head of the plane, whence it is lowered by means of a cable and wheelhouse, to the dump below. Natural means are employed to ventilate the big vein mine, and the management do all in their power to obey the law, making holes to the surface every 150 to 200 feet, and thus securing a plentiful supply of good fresh air.

The Tyson at this place is one of the best regulated mines in the region. A short plane leads up to it from the top of the main plane, and down this the cars are lowered; thence down the main plane to the bottom. At present four headings are working in this mine, employing about 55 men, and while by natural means, the ventilation is always good.

This shows about the average condition of ventilation:

Where Measured.	Cubic feet air.	Number Employees.	Air per man.
Intake at mouth of mine	7,845	55	143
Outlet at No. 1 heading	6,800		

General condition of roads and drainage first-class. The company ships over the C. & P. Railroad.

PIEDMONT MINING COMPANY.

George P. King, Superintendent.

PEKIN MINE.

William Morgan, Mine Foreman.

The Pekin mine of the Piedmont Mining Company is located at Pekin, a mining town on the C. & P. R. R., over which road the company ships their coal. The mine skirts the property of the Maryland Coal Company, finding some very good coal, among workings abandoned years ago, in the "crop coal." When it was thought the Big Vein was inexhaustible the "crop coal," lying near the surface and sometimes slightly discolored by the atmosphere and dampness, was unsalable—now a very good quality of coal is mined, giving employment to about 50 men, and adding to the general good.

An incline plane leads from the dump to a tramroad, on which a small steam locomotive operates, hauling the mining cars when empty to the couple of openings. Long distances are covered for very little coal, and the question of reaching the railway cars is serious. The method employed by the company seems to me the most economical. Ventilation at this operation is by natural means; places are driven through to the surface at intervals of 150 or 200 feet, and while no air readings can be obtained, because the air is not confined enough to measure, the spirit of the law is being observed and at most times the ventilation is fair. Roads and drainage are generally in fair condition.

Moscow Mine.

Charles Stevens, Mine Foreman.

Moscow mine is situated a short distance east of Barton, on the C. & P. R. R. It is in the "big vein," working what was the "Shaw" coal before acquired by the company. With the American Coal Company's No. 13 on one side worked out, and the abandoned Potomac Big Vein mine on the other, the mine works under difficulties. About 20 to 25 men find employment. Ventilation, by means of air holes in the hillside, is generally good. Roads and general condition of the mine as to drainage and safety, very good. A tramroad, or outside haulage road, is made around the hill, and the coal hauled from this opening to the top of an incline plane, down which the cars are lowered by a cable and drum to the dump, at railroad switch.

MOSCOW-GEORGES CREEK COAL COMPANY.

W. A. Somerville, Superintendent.

Moscow Mines, Nos. 2 and 3.

William Askey, Mine Foreman.

Moscow mines Nos. 2 and 3 are on the west bank of Georges Creek, near Barton, and ship on the C. & P. R. R. The mine works the "Barton four foot" coal, which is of very good quality, although it seems to be more refractory than elsewhere. The mine is a drift, ventilated by a small "basket" furnace." Of course, this is inadequate; and when the required number of men are working, it will not meet the requirements of the law. The "big vein" or No. 2 is in the old Pekill property, dumping its product over the same dump used by No. 3. An incline plane of considerable length leads to the first opening, which is about worked out. Within the past year this company has spent a large sum of money in laying up another plane and opening up the old Pekill property, where it is hoped that they will find much big vein. I believe they will; it looked promising on my last visit there—in April. Ventilation is by natural means, and is very good; plenty of air-holes being through to the surface.

Roads and drainage are in good condition in the "big vein," not so good in the "Barton four foot."

Moscow Mine No. 1.

W. A. Somerville, Superintendent

This operation in the "Barton four foot" is located near Barton, on the C. & P. R. R. It is ventilated by a small fan, and the air is fairly good. Usually not enough men are working to bring the mine under the law's provisions, although sometimes I have found over ten men employed. Like many others, the mine is not in as good condition as it might be, owing largely to the fact that it has been mismanaged at the start. Drainage is bad, much of the work being toward the dip. The openings are drifts—three in number, and all in the "Barton four foot," or "Bakerstown" coal—an excellent coal.

At present the mine is being worked by Henry Myers—said to be under a lease.

POTOMAC COAL COMPANY.

Henry Shriver, General Superintendent.

P. H. Gallagher, Mine Foreman.

The Potomac Coal Company has its operation at Barton, shipping over the C. & P. R. R. All their big vein is worked out, and the company is working two of the veins below the big vein. The first is the "Dirty nine-foot" or "Little Clarksburg" coal; two openings have been made. A plane of about 1,000 feet is used to convey the coal down to a tramroad, whence a small locomotive takes it to the dump. This mine has natural ventilation, and in unfavorable weather not what it should be. In small seams, such as this, the ventilation must be very strong to meet the purposes of the law; which is no more than is necessary for the health of miners and the proper mining and cleaning of the coal. The Superintendent visited the mine with me, to consider the best way of properly ventilating it; no water is to be had on the hill where the mine is located, and the question of power is a difficult one. The Superintendent thought at one time of piping steam from the Barton four foot mine, a distance of about 9,000 feet; but this was found impracticable; and the company decided to work only a couple of men until they could get through the mountain, and thus create a natural suction at all times of the year. A couple of air shafts have been sunk at the left side of the mine, which while they improved the case somewhat, did not increase the force sufficiently to bring the mine up to standard requirements.

The openings in the "Barton four foot" are three in number, and among the best in the region. This is the best, in my opinion, of any of the lower veins, except perhaps the six foot. A large blowing fan, 20 feet in diameter, ventilates the mines, and keeps them generally in good condition. For some time before February last this operation has not been working. The drainage has not been the best here, but the coal lies low, and many local "dips" make it a hard matter to keep the mine anything like well drained.

About 48 or 50 miners and mine laborers are employed here.

W. J. CHAPMAN COAL COMPANY.

W. J. Barnard, Superintendent and Foreman. (Resigned and succeeded by Edward Clark.)

The W. J. Chapman Coal Company is working two different veins at Barton—the "Barton four foot" or "Bakerstown" about 400 feet below the big vein, and the Tyson, a vein about 100 feet above the big vein. The "Barton four foot" is in pretty fair condition as to ventilation, a heading being driven through the hill, and the opening being much higher than the mine-mouth, creates a draft, either up or down, at every season of the year. I consider this vein of great commercial value, and enough importance has hardly been attached to its development. The drainage is not of the best—not enough attention has been paid to it in the beginning, and the local "dips" also complicate matters.

About twenty men are employed.

The Tyson, or upper mine, is reached by two incline planes and a tramroad about six hundred feet long, between the planes. The Tyson vein here and at all mines further south, is much thicker than up the region, toward the north-east. It ranges from five to seven feet thick here, a good workable coal. Ventilation has been nothing like it should be, and previous to Feb. 17th last no effort was made to obey the law. On that date I appeared before a Justice of the Peace at Barton, every effort to secure obedience to the law by inspection and discussion having failed, and swore out a warrant for the arrest of the Superintendent and foreman, charging violation of Section 209 G of the mining act—"The operator or superintendent of every coal mine, whether shaft, slope or drift, shall provide and hereafter maintain ample means of ventilation," etc. This mine is in a solid piece of coal, though of not very large extent. Upon my first inspection I saw ventilation was a serious matter. As the operation is small, I agreed with the Superintendent not to insist upon a fan being placed at the mine, provided he would drive air-holes to the surface. It was a question of results, more than of means. This was in June, 1904. The mine was getting larger, more men were being employed, but no means of ventilation being provided. In August I found conditions worse, and asked that they be remedied. In

October I found conditions no better; could get no air readings. Superintendent claimed expense was too great to drive an airhole to the hill-side. In December I found the conditions becoming intolerable, and asked the Superintendent if the company prevented him from making the improvements I asked; he frankly said they were not, that the matter was entirely in his own hands, and the only reason he did not drive the air-course was the great expense involved. I again asked him to carry out the compromise course first agreed upon, and left. On February 17th I again inspected the mine, and finding nothing done toward obeying the law, resorted to the only means remaining to secure obedience to the laws.

On April 4th I visited the operation, and found conditions very much improved. An air-shaft had been sunk at a considerable distance from the mine-mouth, and the mine is now in very good condition as to ventilation.

Much annoyance and unpleasantness would be avoided if every mine official would note fully the requirements of the laws, which the Inspector must enforce, regardless of any considerations, reasonably and fairly.

About thirty-five miners work in this mine.

FROSTBURG COAL COMPANY.

William Thomas, Superintendent and Mine Foreman.

The mines of the Frostburg Coal Company are at Reynolds, a new town on the Westernport and Lonaconing Electric Railway, and ship by the C. & P. R. R. Operations have been suspended for some time, but were resumed in January of the present year. The veins worked are the "Thomas" or three-foot, and directly above, with an incline plane leading up to it, the "Barton four foot," although at present not being worked. The Thomas coal at this point is very hard—almost as refractory as anthracite. Puncher mining machines of "Ingersoll-Sargent" type are used in undercutting the coal, the power being supplied by an air-compressor in their engine room. All coal is mined by machine, no pick mining being done at present. The mine is ventilated by a blowing fan, situated some distance from the mine-mouth, which furnishes plenty of air for the mine, but on account of the exceptionally careless manner in which the mine was formerly worked, air courses had fallen in, headings run into each other, brattices either never put up or indifferently built, all coal mined from the nearest points, regardless to the future of the mine, either as to safety or ventilation, conditions are not good. The present management has made considerable improvement, and while much yet remains to be done, it is encouraging to see something accomplished. The fan is 12 feet in diameter, and steam is piped quite a distance to run it.

This is an inspection report:

Where Measured	Cubic feet air.	Number Employees.	Air per man.
Intake from the fan	21,260	20	10,63
Outlet of 2nd right, and intake to 3rd right	2,160	7	308
Inside cut in 5th right	945	4	271
Outlet at the mouth of the mine	16,100		

Roads and drainage only in fair condition, but the general demoralization of the property is the cause of this.

PHOENIX AND GEORGES CREEK COAL COMPANY.

A. T. Althouse, President.

John Rankin, Superintendent and Mine Foreman.

The Phoenix and Georges Creek Coal Company has three openings in the big vein coal, one in the "dirty nine-foot," or "Little Clarksburg," and two in the "Barton four foot." The openings in the big vein are in the abandoned Phoenix mine mainly, and out of it they have gotten and yet will get a good deal of coal. The mines are all drifts. Natural ventilation in the big vein, and generally all right, air-holes being driven to the surface for ventilation. In the "Barton four foot" are employed about 25 men, and conditions there are very good. The coal at this point seems to be better than most places farther up the valley. Ventilation is by a furnace, and gives satisfaction, the mine being not yet very extensive. The management agrees to put in a fan as soon as it is required. The "dirty nine-foot" is just being opened up. The company has a large area of this coal, as well as of the Barton four foot, which they intend to develop. An incline plane reaches from the dump to the "Barton four foot," the first mine working; another plane leads to the big vein, and about half-way up this plane the "dirty nine-foot" is reached.

This is a report of the ventilation of the "Barton four foot" mine:

Where Measured.	Cubic feet air.	Number Employees.	Air per man.
Intake at the mouth of mine	5,390	....	...
Inside cut-through in main heading	4,160	25	167
Return to furnace	7,425		

This operation is about two miles east of Westernport.

CUMBERLAND AND GEORGES CREEK COAL COMPANY.

Penn Colliery.

J. L. Conrad, Superintendent.

A short distance from the Phoenix Company's mine is this company's mine, the adjoining property. There are three openings at the plant, all in the "Barton four foot," vein. The coal here, like that of the Phoenix Company, is extra good quality, and the mine should be in much better condition. The mine is another of those in the hands of the law. The Grand Jury of Allegany county indicted the Superintendent at the January term of court, 1905; the case is still pending.

On my first visit in June, 1904, I saw the mine was very poorly ventilated. A small furnace, with a wooden stack about four feet square, is the ventilating apparatus. This is all right when a mine is small, but when the excavations proceed any distance, as is the case now at this mine, it becomes totally inadequate. Upon my second visit I again asked the Superintendent to put in a fan. The Superintendent said he would cheerfully do so, but that his company would not let him. I wrote his officials, telling them the condition of their mine, and received an answer to the effect that they had been in the coal business for twenty-five years in Pennsylvania, and that furnace ventilation had always given them satisfaction there; and they could see no reason why it would not do here. I wrote them again, that furnace ventilation might do in mines of larger coal-veins, and with properly constructed furnaces, but at their operation the furnace was almost worthless. The first indictment was found at the January term of Circuit Court, and the States Attorney continued the case to the April term, on the company's promise to "fix things up," as he told me. Twice since January I have visited the mine—once in February and once in April. Mine No. 3 has been opened since; this the company claimed would solve the ventilation problem. The first left heading in No. 2 opening is connected with No. 3 opening, giving an inlet for No. 2 first left heading. As soon as the first left heading is passed the ventilation will be as bad as ever. Their ventilation arrangements are in no way equal to their needs, and anything they are doing is but temporary makeshifts, in no manner calculated to put their mine in a safe and healthful condition.

The mine ships over the C. & P. R. R., on which is a fine dump, with a long incline plane to the mine. Some time ago the company prospected extensively for the "Davis Six Foot" or lower Kittaning coal. About 25 or 30 miners generally work here, sometimes reaching over 40 and at times down to about 15.

PIEDMONT AND CUMBERLAND COAL COMPANY.

HAMPSHIRE MINE.

James McDonald, Superintendent and Mine Foreman.

This mine is in the "Davis Six Foot" or Lower Kitanning coal, and is situated near Westernport, where the Hampshire mine of the Hampshire and Baltimore Coal Company once was. It is still called the Hampshire mine. The mine was opened up, and like many others the company proceeded to work out the close coal, the result being that the operation becomes a "go as you please" method of working, disastrous both for employer and employee. Ventilations is supplied by a force fan, and except where the air is lost through the before-mentioned "hogging" methods of mining, it is carried in fairly good quantity to the working places.

In the second left heading of this mine there was some "Marsh Gas," or carburetted hydrogen. The heading was being driven toward the point where the coal goes under Georges Creek, and the outcrop is lost, on the left side of the mine. The gas would gather in a short time, a sufficient quantity to severely burn a person, did they come upon it unexpectedly. The company stopped operations upon the heading where the gas was noticed in such quantities, and have not since worked it. I have advised the mine foreman to take every precaution possible against accident, as this heading showed more gas than anywhere else in the region. In fact, only in two mines—Washington No. 3 and Hampshire mine, are these dangerous and treacherous gases generated. It may be that these places will "blow out" and exhaust themselves as sometimes happens; I trust so; but so many catastrophes occur in mines never known to have gas before the wreck occurs, that I feel it my duty to urge upon everyone connected with the mines, that they double their vigilance, believing in the old maxim that an "ounce of prevention is worth a pound of cure."

A large amount of powder is used here for the coal produced, and at times the working places are filled with smoke.

This is an average inspection during the year:

Where Measured.	Cubic feet air.	Number Employees.	Air per man.
Intake from fan	26,910	47	573
Inside cut-through in 2nd left	5,470	6	912
Inside cut-through in 2nd right	5,950	30	198
Outlet at mouth of the mine	9,900		
Working in other parts of the mine, drivers, etc.,	......	11	...

Roads and drainage in fair condition.

DAVIS COAL & COKE COMPANY.

BUXTON MINE.

O. Tibbitts, Superintendent. Robert Grant, Mine Foreman.

This is another operation in the "Davis six foot," or Lower Kitanning, and while a large part of the excavations are in Garrett county, the opening is in Allegany county, and has been so described by my predecessor. It is at present the largest operation in the "Davis" seam in the State. The coal is shipped over the West Virginia Central and Pittsburg Railroad, an incline plane leading up to the mine, whence an endless rope haulage conveys the cars to and from the various headings. This haulage system makes a complete circuit of the mine, from right to left, and the mine cars are brought to the haulage roads by drivers, with small mules. This company had a large amount of trouble the past winter, with the breaking of various parts of the machinery in their power-house. This power-house furnishes power to let the loaded cars down the plane, and when empty bring them up again; hauls the rope and cars around the haulage circuit; and supplies power to drive the two fans that are used, one for the right and one for the left side of the miner. In the 5th right heading the company has also met serious trouble, having for some time been driving through solid rock. It is to be hoped they will get through this "fault," since a large number of people depend upon the operation for a livelihood.

The mine is ventilated by two force fans, one of the best equipments in the State. The ventilation has never fallen below the requirements of the law during the past year.

The following presents an average inspection during the year:

Where Measured.	Cubic feet air.	Number Employees.	Air per man.
Intake from fan, right side	27,280	115	237
Intake to 1st cross, 1st right	5,280	12	440
Intake to 1st right	6,510	32	203
Intake to 2nd right	9,450	51	185
Intake to 3rd right	3,423	10	342
Intake to 4th right	5,100	10	510
Intake from fan, left side	41,800	39	1,072
Outlet of 2nd left	12,150	9	1,350
Outlet of 3rd left	9,460	11	860
Outlet to 4th left and intake to main heading	8,225	15	548
Intake to 5th right	5,700	4	1,425
(This last reading was taken some distance from the working place, and not all reaches the men.)			
Outlet of both sides	60,200		

This shows a large volume of air travelling in all the headings, and yet, with the great amount of powder used, there is often plenty of smoke. The drainage at this plant is quite a problem, as nearly all the mine slopes toward the dip. Every effort is made to keep the water out of the places, but frequently I have seen men working where it was wet, and consequently very disagreeable. Possibly the company may be able later to let off the surplus water through the Piedmont and Georges Creek Company's Washington Mine No. 3, on the other side of the mountain, as work advances.

About one-third of the employees in this mine work at night, there not being places enough for them all to work in day-time.

MORRISON'S LAND COMPANY.

De Warren H. Reynolds, President.	Roderic Clary, Secretary-Treas.

J. H. Cofrode, Jr., Superintendent.

This mine is located at Reynolds, on the line of the Westernport & Lonaconing Electric Railway. It is worked exclusively for the use of the railway company, to generate power for one of the nicest and cleanest trolley lines in the county. The coal worked is the "Thomas three foot," or Upper Freeport, and is of very good quality. Preparations are on foot to ventilate the mine with a fan. The output last year was 2,239 tons, two men and a boy being employed.

Garrett County Mines.

PATTISON COAL COMPANY.

G. C. Pattison, Superintendent.

This is the only mine in the State shipping direct over the Baltimore & Ohio Railroad, and is situated about one mile west of Bloomington. There are two openings—one in the "six foot" or Davis vein, the other reached by an incline plane, in the "Barton four foot" coal. About thirty men and boys are employed in both mines at present, although no work was done for the first five months of my term. The fan in the "six foot" mine is not kept running at all times, as it should be; although that is explained by claiming that they have no water at dry seasons of the year. As ventilation is most essential to the health and safety of the miners, the company should make strenuous efforts to keep their fan going. The Barton four foot coal, higher up the hill, is a very good mine, but at times the management does not drive cut-throughs as close as the small seam requires. The coal in the "four foot" mine is of good quality, and mostly free from any faults. It is the most persistent and uniform of all the smaller veins.

The six foot coal is troubled at this point with many faults or clay seams.

MONROE COAL MINING COMPANY.

G. C. McFarlane, Superintendent.

H. B. Kight, Foreman, Six Foot Mine.

L. R. Kight, Foreman, Four Foot Mine.

This Company's Barnum Mines, Nos. 1 and 2, are located at Barnum, West Va., (on the Maryland side of the Potomac) and ship over the W. Va. C. & P. R. R. The No. 1 mine or "split six" as it is called, is ventilated by a fan; it is in fairly good condition as to ventilation, but could be much better. The present company did not open the mine, and the previous owners worked it very carelessly. In part this accounts for a great loss of air before it reaches the place intended for; leaky brattices and old workings being responsible for about half of the air that the fan throws. Machines are used in this mine, of the puncher type. The roof is very dangerous, being a soft fire clay, at places very hard to keep up. The following is an average inspection of the mine:

Where Measured.	Cubic feet air.	Number Employees.	Air per man.
Intake from fan	29,110		
Inside cut-through in 5th right	1,150	6	192
Inside cut-through in 6th right	910	4	227
No air reading on main heading			
Outlet on 6th left	1,960	3	653
Inside cut in 5th left	1,380	3	460
Outlet, near the mouth	9,240		

This shows plenty of air for the miners employed, but it also shows a great loss from the work of the fan. The outlet, I measured inside of some leaky brattices on main road, and have nearly 20,000 cubic feet air per minute less than the intake from the fan.

The "Barton four foot" coal is reached by an incline plane, about 450 feet above mine No. 1. A considerable area is worked in this mine, ventilation being altogether by natural means. The company had a fan about completed on the occasion of my last visit, April 14th, 1905, and no doubt is furnishing plenty of good air ere now. It was badly needed at this operation, as ventilation at times, particularly during spring and fall, when the temperature was about the same outside as inside, was very bad. The coal of the upper mine is very good, and with improved conditions good ventilation will bring, will no doubt prove very profitable.

DAVIS-HARVEY COAL COMPANY.

J. H. Davis, Superintendent.

The Davis-Harvey Coal Company has opened a mine about one mile north of Blaine, W. Va., in Garrett County. It is in the "Upper Freeport," or "Thomas" vein, and promises to become quite important. First shipments began early in February of the present year, but at no time yet have enough men been employed to come under the law. When first started no scale was used, but the owner paid the miners on a basis of one ton, five hundred weight assumed weight for each car loaded, until he could communicate with myself. At the superintendent's request I went to the mine February 8th, and in the presence of all the miners and the mine owners measured the cubical contents of a couple of cars, which all parties agreed were loaded about the usual way; and found that not more than one ton load. However, as measuring coal is not absolute, some cars out of the same places weighing more than others, and as this "Thomas" coal is a refractory grade, a semi-anthracite coal in nature, both sides agreed to make the rate one ton, two and one-half hundred-weight, until the company put in a mine scale, which they are anxious to do as soon as possible.

Shipment is made over the W. Va. C. & P. Railroad.

BLAINE MINING COMPANY.

S. B. Brydon, Superintendent. Wm. Draimer, Mine Foreman.

This is an ideal coal mine. The Lower Kittanning, or "Davis six foot" coal is worked, and at no time during the year has there been any violation of the ventilation laws. I have always been able to get a great deal more air current than the law requires, in each of my six visits of inspection. There has been some dissatisfaction at this mine, about the weight. I have made a test of the scales, and found them absolutely correct, and after a most thorough investigation can say that I have discovered nothing indicating that the Company is doing wrong in this direction.

The following is an average inspection of the mine:

Where Measured.	Cubic feet air.	Number Employees.	Air per man.
Intake from fan	42,120	64	658
Inside cut-through, 1st right	14,200	7	2,028
Inside cut-through, 2nd right	11,486	5	2,297
Inside cut-through, 3rd right	10,780	4	2,695
Inside cut-through, 4th right	10,102	6	1,683
Inside cut-through, 5th right	9,555	5	1,911
Inside cut-through, 6th right	8,120	7	1,160
Inside cut-through, 7th right	7,280	5	1,456
Inside cut-through, 8th right	5,120	10	512
Inside cut-through, 8th left	5,635	6	939
Inside cut-through, 7th left	4,410	5	882
Inside of all working places, 5th left	8,505	4	2,126

The local dips in this vein everywhere make it difficult to drain at times, therefore the drainage is not always of the best. The mine is about a half-mile south of Blaine, West Va., at Dill, and ships over the West Va. C. & P. R. R.

GARRETT COUNTY COAL MINING COMPANY.

H. B. Douglas, Superintendent.

Thomas Malloy and William Jones, Mine Foremen.

The mines of this Company at Dodson, Nos. 1 and 3, were in pretty bad shape as to ventilation the first three visits I made. It was not that the Company did not want to ventilate, but because they were undecided as to the kind of fan they wanted to put in. In September, 1904, they completed one of the best fans in the State, at their No. 1 mine—one of the Crawford-McCrimmon make. They are putting in overcasts, thus avoiding the necessity of trap-doors and consequent interruption of the air-current, also saving the expense of an attendant. The seam worked here is the Lower Kittanning, or Davis six foot, in which about 80 men and boys are employed, and the Upper Kittanning in Mine No. 2, employing about 15 men and boys. This is the only place in the two counties where this seam is worked, and some claim that the coal does not exist in Allegany County. It is a very good coal, about four feet high, and comparatively free from impurities. Furnace ventilation is used, but furnace ventilation has its limitation, and in a short while a fan will be required. The company has built a very pretty town at this place, with superintendent's residence and a complete water system, water piped into every house. Coal is shipped over the W. Va. C. & P. Railroad, from a point close to Harrison, where the Elk Garden branch of that road meets the main line.

The following inspection report was taken after installation of the fan:

Where Measured.	Cubic feet air.	Number Employees.	Air per man.
Intake from fan	52,650	80	658
Inside cut, 1st right	7,560	17	445
Inside cut-through, 2nd right	7,175	12	598
Inside cut-through, 3rd right	4,600	12	383
Inside cut-through, 3rd left	1,815	12	151
Inside cut-through, 2nd left	6,510	13	500
Inside cut-through, 1st left	8,100	14	578
Outlet at mouth of mine	51,650	....	....

These readings were somewhat back from the face of the headings, air courses being behind. Miners prefer to work headings, and because of that the air courses in some cases were hard to keep going.

DATESMAN MINING COMPANY.

Now, Stoyer Run Coal Company.

H. E. Gray, Superintendent.

This mine is located at Stoyer, a small village, located about two miles north of Gorman, on the West Va. C. & P. Railroad. There are two openings, rather close to each other for good results in ventilating. A furnace is built with a wooden upcast, some distance from the openings. On the occasion of my first couple of visits to this operation, I found conditions very bad; no air, places wet and mine in a generally dangerous condition. About the middle of August the Datesman Coal Company went into the hands of receivers. Some time later the property was sold at public sale, and bought by the present owners. In February of this year operations were resumed. Early in that month I visited the mine and found conditions little better. Told the superintendent I would be forced to take action against him if he did not improve ventilation. The new company promised to better the air, and under the present mine foreman, Thomas Robinson, I find much improvement.

This is the last report:

Where Measured.	Cubic feet air.	Number Employees.	Air per man.
Intake at mouth of both openings...	4,500	18	250
Return to the furnace..............	4,320	....	....

This is much better than any of my former visits. The company contemplate some very extensive improvements during the present year.

NETHKIN COAL COMPANY.

John Jose, Superintendent.

This mine is located close to Bayard, West, Va., but the opening is made in Maryland. No shipments have been made as yet. Some coal is being mined for local use, and it is expected that quite a large operation will eventually be established. I visited the mine on two occasions, but did not find men enough to bring the operation under the law. When shipping begins, it will be over the W. Va. C. & P. R. R.

UPPER POTOMAC COAL COMPANY.

F. L. G. Grammer, Supt. (Resigned Sept., 1904).

R. Y. Williams, Superintendent. Robert Brown, Mine Foreman.

Upper Potomac Mine was in very bad condition when I first visited it, especially as to ventilation. The seam they are working is not very high, excavations are of considerable extent, and the means of ventilation was a furnace, poorly constructed, and air-courses, totally inadequate, being too low, and the power of the furnace spent before it reached the miners. The company made two new openings, about a half-mile around the hill from the old ones, and abandoned the former workings. Under the present superintendent and mine foreman this mine has been made a desirable place to work, because of the improvement in ventilation. Where before only 10 to 20 men could be employed, now from 40 to 50 find work, showing that as an economic proposition it pays to observe the laws; and what appears a hardship when enforced, proves a blessing in the end.

The following will show the present condition of the mine:

Where Measured.	Cubic feet air.	Number Employees.	Air per man.
Intake at mouth of mine...........	5,376	30	179
Inside cut-through, 1st right........	2,660	18	146
Inside cut-through, main heading....	2,460	9	273
Return to furnace.................	5,655	3	....

Overcasts, or air-bridges, are being put in at this mine, to give each heading its separate split of pure air.

Some of the mines in Garrett County have not worked so much as was expected, from the large development and the impetus given the coal trade in 1902. Franklin Mine, one of the largest mines reported in Garrett County, operated by the Davis Coal and Coke Company, was abandoned during the past year, being worked out. During the last year the mines of Garrett County produced

184,942 tons of coal, employing 283 miners and 116 mine laborers, in and outside the mines. The following table shows the output of the Garrett County mines in detail.

Company.	Name of Mine.	Days worked.	Employees.			Pick Mines, tons.	Machine Mines tons.	Total Mined, tons.
			Mines.	Laborers	Total.			
Pattison Coal Co.	Pattison 1 & 2	180	25	13	38	15,125	......	15,125
Monroe Co. Mining Co.	Barnum 1 & 2	195	35	39	114	28,056	20,000	48,056
Davis - Harvey Coal Co.	Blaine No. 1	...	49	4	13	......	......	......
Blaine Mining Co.	North American	246	45	10	55	55,656	......	55,656
Garrett Co. Mining Co.	Dodson 1, 2 & 3	170	81	27	108	47,002	......	47,002
Upper Potomac Coal Co.	Upper Pto. No. 3	300	30	13	43	12,000	......	12,000
Stoyer Run Coal Co.	Alice	60	18	10	28	7,134	......	7,13
Totals	......	...	283	116	399	164,942	20,000	184,9

nty.

620

Improvements During Year.	Worked out or Abandoned.
ne, wheelhouse, tramroad, 1 new opening	
ne, wheelhouse, tramroad, 2 openings	
	Suspended.
xtended, 1 new opening	
engine, rope haulage, on slope, tramroad ex- 00 feet	One opening worked out
ulage, third rail	

Da 19 May May May May July Aug. Nov Dec. Dec. 19 Jan. Jan. Jan. Jan. Feb. Feb. Mar

Table of Fatal Accidents in 1904-5.

DATE.	NAME.	OCCUPATION.	AGE	MARRIED OR SINGLE.	NO. IN FAMILY	RESIDENCE.	CAUSE OF ACCIDENT.	MINE.	EMPLOYER.
1904									
May 16	Albert Harris	Miner	28	Single		Eckhart	Fall of breast slate	Union No. 2	New York Mining Co.
May 16	John Malooly	Miner	32	Married	3	Morantown	Fall of breast slate	Union No. 2	New York Mining Co.
May 25	Allan Spier, Sr	Miner	48	Married	7	Midlothian	Fall of roof coal	Carlos	Btn. & G. I. Valley C. Co.
May 30	Thomas Watkins	Miner	26	Married	2	Mt. Savage	Fall of fire clay, coal and slate	Fire Clay	Union Mining Co.
July 8	John M. Thomas	Miner	56	Married	Large	Frostburg	Fall of roof coal	Carlos	B. & G. C. V. Coal Co.
Aug. 10	Robert McMillan	Miner	18	Single		Lonaconing	Dragged by mule	Jackson	American Coal Co.
Nov 15	James Wilson	Miner	34	Single		Allegany	Fall of slate and roof coal	Union No. 2	New York Mining Co.
Dec. 22	James Wells	Miner	20	Single		Lonaconing	Fall of roof coal	Ocean No. 7	Consolidation Coal Co.
Dec. 28	Harmon Crowe	Miner	23	Single		Borden	Trip runaway inside plane	Union No. 1	Union Mining Co.
1905									
Jan. 11	David Hudspith	Miner	26	Married		Savage, W. Va.	Fall draw slate	Buxton	Davis Coal & Coke Co.
Jan. 13	Harry McMannis	Miner	16	Single		Franklin	Burned by blasting powder	Penn	Cumb. G. C. Coal Co.
Jan. 17	Daniel Timiney	Miner	32	Married	2	Moscow	Buried under cave-in	Jacks'n No.9	American Coal Co.
Jan. 27	Hiram Porter	Motorman	26	Single		Borden	Run over by motor	Union No. 2	New York Mining Co.
Feb. 7	Joseph Williamson	Miner	35	Single		Franklin	Fall of bone coal	Penn	Cumb. G. C. Coal Co.
Feb. 8	Charles Miller	Miner	45	Married		Barton	Fall of roof coal	Caledonia	American Coal Co.
Mar. 16	William Trappe	Miner	50	Married	Large	Midlothian	Fall of roof coal	Carlos	Btn. & G. C. V. Coal Co.

The Co-Operative Insurance Law.

(Chapter 412, of the Acts of 1902).

AN ACT to create a Co-operative Insurance Fund, to be maintained by Coal and Clay Miners and their Employer in Allegany and Garrett Counties, and to add four new Sections to Article No. 1 of the Code of Public Local Laws, title "Allegany County," under the sub-title Coal and Clay Miners and Employers' Co-operative Insurance and Liability, and, in like manner, to add four new Sections to Article No. 12, of the Code of Public Local Laws, title "Garrett County," under the sub-title Coal and Clay Miners and Employers' Co-operative Insurance and Liability.

WHEREAS, Experience has shown that in certain perilous occupations followed in Allegany and Garrett Counties, in the State of Maryland, by its workmen and artisans a great number of fatal accidents annually occur, so that the frequency thereof may be estimated from year to year, in which perilous occupations is has been found by uniform experience that the unavoidable or trade risk is responsible for at least ninety-five per cent. of such fatal accidents; and

WHEREAS, The persons who suffer such fatalities are usually poor, working from day to day to sustain themselves and their families, and unable to accumulate any estate for the sustenance of their widows and infant children in case of their untimely death; and

WHEREAS, It is unjust and against public policy that in such perilous occupations the burdens of the trade risk should be entirely borne by the widows' and orphans of such workmen; and

WHEREAS, It is of grave necessity and importance that some method of partial indemnification, at least, should be available to the dependants of such persons as are inevitably killed in such perilous employment, lest they come to undeserved suffering, and the State be required to undertake their support; therefore, in consideration of the premises, and other considerations, the following Act.

Section 1. Be It Enacted by the General Assembly of Maryland, That four new sections be, and the same are hereby enacted and added to Article No. 1 of the Code of Public Local Laws, title "Allegany County," said sections to follow after Section 195, of said Article No. 1, under the caption, "Coal and Clay Miners and Employers' Co-operative Insurance and Liability," and to be designated as Sections 195a, 195b, 195c and 195d, respectively; and be it further enacted, That four new sections be, and the same are hereby added to Article 12 of the Code of Public Local Laws, title "Garrett County," said sections to follow after Section 149 of said Article No. 12, under the caption "Coal and Clay Miners and Employers' Co-operative Insurance and Liability," and to be designated as Sections 149a, 149b, 149c, and 149d, respectively; said sections, as to both Allegany and Garrett Counties, to read as follows:

Section 195a of Article 1, and Section 149a of Article 12. Any corporation, partnership, association, individual, individuals, engaged in the business of owning or conducting any coal mines, clay mines in Allegany or Garrett Counties, whether such owner or owners, operator or operators, be residents of the State of Maryland or not, employing persons in the operation of mining coal or clay, shall be liable in law to any employee engaged in such occupation or to his legal representatives, in case of death, for the damage arising and flowing from any injury received by said employee through the negligence of said owner, or operator, or from the negligence of any agent or agents, employe or employes, and if the negligence causing such injury be found to consist of the joint or collective negligence of both the employer, his agent or agents, employe or employes, on the one hand, and of the negligence of the injured employe on the other hand, then it shall be the duty of the jury, or of the Court sitting as a jury, to determine and ascertain as near as may be the proportion of such negligence of which each has been guilty, and having ascertained and determined such proportion of negligence causing the injury, it shall be the duty of the jury, or of the Court sitting as a jury, to apportion the damages arising from said injury in like proportion or degree and award to the plaintiff or plaintiffs the proportion of damages suffered which it shall have been determined was the proportion of the defendant or defendants' negligence contributing to the injury complained of.

Section 195b of Article 1 and 149b or Article 12. Provided, That no employer, owner or operator shall be liable under the aforegoing section of this Act if the said employer, owner or operator shall pay annually in advance in monthly installments, to the Insurance Commissioner of the State of Maryland, on the first Monday in each month, the following sums of money, respectively, one-half of which may be deducted by such owner, employer or operator from the wages of their employes, and the employer shall inform their employes of the provisions of this section, and make the same a condition of their employment, to wit, as follows: Any coal mine or clay mine employer or employers shall pay said Insurance Commissioner the annual sum of one dollar and eighty cents for each and every person employed on its pay roll in the State of Maryland; provided, however, that no employer liable under the preceding section of this Act shall be entitled to take advantage of this Act and its provisions, unless the said party shall on the first Monday of each month make a report under oath to the Insurance Commissioner aforesaid, stating the number of persons actually employed in Maryland, and on its payroll during the preceding month, and the estimated number to be employed during the month of the report, and shall pay the monthly installment above required.

Section 195c of Article 1, and Section 149c of Article 12. It is hereby made the duty of the Insurance Commissioner of Maryland to receive and safe custody keep of all such sums of money or insurance premium as may be paid to him under the provisions of this Act, and to keep such moneys in a distinct fund, free from all other moneys which may come to him. And the bond if said Insurance Commissioner shall be liable for all moneys which come into his hands, under the provisions of this Act, and to keep accurate account of such moneys and the number of accidents in each occupation giving rise to any claims against the same, and in the event of the death of any employe insured under the second section of this Act, who shall have come to his or her death in the course of his or her employment and from causes arising out of such employment covered by this Act; provided, that such death shall not have occurred at a period longer than one year from the date of the injury, then the State Insurance Commissioner upon being satisfied by adequate evidence of such death, shall pay to the legal representative or unto the widow or children or husband of the deceased as the said Insurance Commissioner shall deem wisest for the defendants, if there be any, the full sum of one thousand dollars, and shall pay such indemnification for no other reason or cause whatever.

Section 195d of Article 1, and Section 149d of Article 12. The said Insurance Commissioner shall report in January of each year to the Governor the experience of this function of this department and keep proper statistics of the operation of the same, and shall have power to regulate from year to year the amount per capita required from each employer for each employe engaged in the occupations above prescribed, and said Insurance Commissioner shall have plenary powers to prescribe the notice of accident, the character of proof thereof and the proof of death, and the character and specific requirements of the monthly report herein provided for and to make full regulations for the government of this function of this department, and shall receive from the annual receipts of such insurance premiums one per centum for the payment of such extra services as may be required in the administration of the duties imposed by this Act. The word employe as used in this Act shall be construed to mean every person employed by the employer in such employment working in the State of Maryland.

Section 2. And be it enacted, That this Act shall take effect from the first day of July, in the year 1902.

Approved April 8, 1902.

Accidents During the Year.

The total number of accidents during the year, from May 1st, 1904, to May 1st, 1905, was 54, a decrease of 25, as compared with the corresponding period of the year preceding. Of this number, 16 were fatal, 38 non-fatal. There were 15 fatal accidents incident to the production of coal, and one in the fire-clay mines of the State. Of the non-fatal accidents, 37 were in the mining of coal, and one in the fire-clay mines. Sixteen of the non-fatal accidents were serious, and 21 were slight in nature. The one accident in the fire-clay mines was slight. The number of fatal accidents is extraordinary for the year just ended. Twelve of these fatal accidents resulted from falls of roof coal and slate; two on haulage systems; one a driver, the other an electric motor driver; one by the careless use of blasting powder; and one by a run-away mule, outside the mine. It will thus be seen that the great destroyer of human life in our coal mines is roof-coal, this alone being the direct cause of eight fatal accidents, beside two from places caving in altogether, one in fire-clay and one in a coal mine; one from draw-slate falling, and one by "bone coal" —12 in all, three-fourths of all the fatal accidents. The top coal that forms the roof above the big vein is usually from two feet to two and one-half feet in thickness. It is full of "slips," frequently running very irregularly, and again will extend hundreds of feet in one direction. This is one of the most dangerous roofs in mining anywhere, and it is solely by the superior intelligence and skill of the miners and the vigilance of the foremen in the region that the death rate is kept as low as it is. At present about 75 or 80 per cent. of the coal mined is pillar coal, consequently more accidents from roof coal falls are to be expected. Mine foremen and their assistants should insist at all times upon the miners properly timbering their places, for nearly all accidents occur in working places that are considered safe; miners taking risks there that they would not take in a place visibly dangerous. The only safe method of mining the "big vein" is to put up a prop whenever there is room for it, regardless whether the roof sounds hard or soft, and whether there is a car to finish or not. Prompt attention to this would reduce the loss of life greatly. I also wish to call attention to the reckless handling of explosives. I have seen miners making cartridges with their lamps blazing on their caps, and when their attention was called to the risk would offer some flimsy excuse. Some men in mines need parental attention and watching to preserve their lives.

This watching can best be done by the mine foreman and his assistants, and they generally are competent men. They should not hesitate to call any miner's attention to any risk he may be running, whether the miner be experienced or not. Sometimes the experienced miner takes risks.

In every fatal accident, as soon as I could reach him, I notified the county coroner; but after investigation but one case seemed to require an inquest—that of Thomas Watkins, killed in the fire-clay mine. There were, as before stated, 38 non-fatal accidents during the inspection year. Mine foremen are not so prompt as they should be in sending in their monthly reports of accidents. Some did not report monthly at all, and I had to go to their company for them when the year was ended. Sub-section A of the mining law says: "The mine foreman shall report monthly to the Mine Inspector, on blanks furnished by said Inspector, all accidents resulting in personal injury." This would make the work of compiling the annual report much easier. Quite a number of minor accidents, resulting from miners riding on planes where riding is prohibited, and from being on haulage roads, when there are other means of egress and ingress, are reported. But three accidents were reported from Garrett County, none of them fatal. I have included these in the general list of accidents, tables of which appear in this report.

FATAL ACCIDENTS.

1904.

May 16. Albert Harris, miner, employed in Union Mine No. 2, aged, 28, single, residence Eckhart, was instantly killed by a fall of breast slate. This slate is between the bottom and top coal, and sometimes very thick. It would seem an unavoidable accident.

May 16. At the same mine, and on the same day, John Malooley, a miner, aged 32, with wife and two children, living at Morantown, was internally injured by a fall of breast slate, and died 15 days afterwards. The only wonder is that he was not killed outright. The accident looked to me like a case of gross carelessness. The putting up of a prop might have prevented it.

May 25. Allen Spier, a miner in Carlos slope, of the Barton and Georges Creek Valley Coal Company, aged 48, married, with family of six children, resided at Midlothian; was internally injured by a fall of roof coal, from which he died about 12 hours later. This was an accident none could foresee; his place was well timbered, and he was a prudent, careful miner.

May 30. Thomas Watkins, a miner working in the fire clay mines of the Union Mining Company, at Mt. Savage, age 26, married, had wife and one child. His residence was Mt. Savage. This was a case where it would seem as if the unfortunate man walked into his death. The day was a holiday—Memorial Day—and the fire clay miners were not at work. Those who came to work were told they could have all the cars they could load. Watkins and his "partners," the men who worked with him, went into a place that had been abandoned, it is supposed to get some softer, easy clay, when in some way the roof caved in, letting down tons of coal, slate and fire clay. The others got out, but Watkins was buried beneath the debris, from which he was not extricated until 4.30 next morning. The mine foreman had visited that part of the mine at 8.30 that morning, and found Watkins and his comrades in their proper place. Why he was there, however, could not clearly be determined. Coroner O'Neill, of Cumberland, empaneled a jury, and an inquest was held. It was shown that the company was not responsible for Watkins' being in the abandoned place, and that their regular place was in good condition, and they were exonerated from blame.

July 8. John M. Thomas, a miner residing at Frostburg, aged 56, married, with grown-up family, was hurt by a fall of roof coal, from which he died a few hours later, in the "old mine" at Carlos. operated by the Barton & Georges Creek Valley Coal Company. He was a most prudent, careful and experienced miner, and when I visited the place in which he was killed, I found it in good condition. No man would think it possible for a serious accident to occur.

August 10. Robert McMillan, miner, single, aged 18. This was a most distressing accident. Young McMillan worked in the "Koontz" or "Waynesburg" mine, about two miles from the company's stables. The regular driver in the mine lived directly below the mine, at Pekin, and McMillan had been in the habit of taking the mule to the stable, as he lived in Lonaconing, thus saving the driver much time and trouble. It is not known positively how the accident occurred, but probably in attempting to mount, the mule became frightened and ran away, and the lad, becoming entangled in the traces of the mule, before any one could get near him, was dragged to a horrible and untimely death. The mule ran three miles with the body before being stopped.

November 15. James Wilson, a miner, employed at Union Mine No. 2 of the New York Mining Company, aged 34, and unmarried; living at Allegany. The cause of the accident was a fall of slate and roof coal from a "horse-back." He had just fired a blast, and without waiting to examine the overhanging top, went up to find what the blast had accomplished—as many miners foolishly do; when it gave way and injured him internally, from the effects of which he died in three days.

December 22. James Wells, a miner working in Ocean Mine No. 7, or "Klondyke," of the Consolidation Coal Company, aged 20, single, residing in Lonaconing. As in all such cases I examined the working place just as it was when the accident occurred, and I regret to say that I believe the accident could have been prevented by the setting up of a couple of props and cross-bar. The same thing that has lost the lives of many other miners in this region was there apparent—a car almost loaded, and perhaps a wait to finish the loading before setting the props that would have prevented the fatal accident. The man died a few minutes after being removed from beneath the top coal.

December 28. Harmon Crowe, a miner and extra driver, aged 23, unmarried; residing at Borden mine. Was almost instantly killed by being run over by a trip of cars in the inside plane in Union Mine No. 1, of the Union Mining Company. I was on the scene a couple of hours after the accident; found that he was killed 150 or 200 feet past where his duties as a driver called him; no one seemed to know why he was at this point, so far from his proper place.

1905.

January 11. David Hudspith, miner, aged 26, married, residing at Savage, West Va., employed in the "Buxton" mine of the Davis Coal & Coke Company; was fatally injured by a fall of slate, dying about three hours later. This "draw-slate" generally falls without any warning; as it did in this case.

January 13. Harry McMannis, a miner aged 15 or 16 years, single, residing at Franklin, employed in Penn Colliery, of the Cumberland and Georges Creek Coal Company, was fatally burned by an explosion of powder. Whether he was making a cartridge or fooling with the powder no one seemed to know; although I had information that he had been in the habit of doing this. He was terribly burned about the head, arms and body. Was taken to the Western Maryland Hospital, in Cumberland, some days after the accident, and died there Jan. 24th, eleven days after.

January 17. Daniel Timiney, aged 32, miner, married, with wife and one child, working in No. 9, one of the mines of the American Coal Company, was buried beneath a fall that extended to the surface. About seven or eight miners were working with Timiney at the time, and all had very narrow escapes in getting out, one or two being slightly injured. I arrived at the scene that evening, about 8.30, and found the company doing all in their power in the work of rescue. The body was not recovered until 6.30 the morning after the accident. The exact conditions before the fall could not be seen, as in most other accidents. I telephoned the coroner, asking him to make an investigation, which he did, bringing all the men who were working with Timiney before him. Their testimony agreed that the place did not appear at all dangerous; they were all standing close by when the fall came. The other men escaped, and Timiney was caught—that was about the testimony. The coroner decided that an inquest was unnecessary. This was the last work done in this opening, as the fall closed the mine.

January 27. Hiram Porter, motorman, aged 26, unmarried, residence Borden, was run over and instantly killed in Union Mine No. 2 of the New York Mining Company. He had just come out of the second left, or Carlos heading, with 11 loaded cars, leaving the rest of his train to be run down by hand, as was the custom. With the 11 loaded cars he had two brakesmen, and was moving very slowly, when the front brakesman saw his light raise up, then disappear, and instantly felt the jar of the cars leaving the track, and the trip stopped. They found young Porter under the second loaded car, the motor and first car having passed over him.

February 7. Joseph Williamson, colored, miner, aged 35, single, residing at Franklin and employed in Penn Colliery of the Cumberland-Georges Creek Coal Company. He was making a cut-through from heading to air-course, and under a large amount of "bone coal," which is very thick at this point, nearly two feet, and had no post, nor prop of any kind, under it; when it fell, inflicting internal injuries upon the man from which in a few hours he died.

Questioning the superintendent as to permitting miners to be so careless, he said that his men would quit if he insisted upon their propping their places. Being told that the man died of shock, I telephoned Dr. Parsons, the attending physician, and he sent me this statement:

PIEDMONT, W. VA., Feb., 18, 1905.

Thos. Murphy, Mine Inspector, Midland, Md.

Dear Sir:—

On or about the 7th of February I was called to see Joseph Williams, colored, who had been accidentally injured in Cumberland and Georges Creek Coal Company's mines. I saw him about nine to ten in the morning, and found him suffering from severe shock, greater than I could detect the cause for. He seemed to rally some before I left him, but died in some 8 or 10 hours. Next morning, while the undertaker was preparing him for burial, I had him to open his abdomen. I did not make a thorough investigation of the injuries, but saw the muscles of the abdomen severely bruised and contused. The lower part of the bowels and all the abdominal viscera that I saw were in the same condition, with extravasation of patches of blood into the cavity, and among the bowels. I thought there was sufficient cause for death, and made no further examination.

Respectfully yours,

E. H. PARSONS, M. D.

February 8. Charles Miller, a miner, aged 45, married, and residing at Barton, was fatally hurt by fall of roof coal at Caledonia mine of the American Coal Company. He was bent over, making a hole to set a prop down with which to hold up a bar against the roof, when the top coal gave way, almost killing him outright. He lived but a few hours. This could hardly have been foreseen; the men working were good miners, careful and painstaking timbermen, and no one would have thought for a moment that he was in the least danger.

March 16. William Trappe, miner, aged about 50, married and having a large family, was fatally injured in Carlos mine, of the Barton & Georges Creek Valley Coal Company, "on the hill." He was engaged in what the miners call "scutching" when he "faced" a V-shaped "slip." The cross-bar the men had set up had but one timber prop; the other end resting in a hole dug in the coal at the side of the excavation. When the weight of the loosened coal, a ton or a ton and a half, fell to the bar, the sunken end tore out of the coal, swung out, and dropped the mass on Trappe. The practice of putting cross-bars in holes in the coal cannot be too strongly condemned. It is not often that this coal will hold solid for any length of time, and it is hardly ever safe if weight comes upon it.

NON-FATAL ACCIDENTS.

1904.

May 4. Roy Johnson, miner, 18 years old, single, lived at Lonaconing. Hurt toe with pick. Off work three weeks. Injured in Jackson mine, American Coal Company.

May 9. Joseph Sleeman, miner, age 22, single, residence Vale Summit, working in Consolidation Coal Company's "Hoffman" mine. Leg and arm hurt by fall of breast coal, not seriously.

May 13. John McGeady, Sr., aged 60, married, residing at Ocean. Working in Ocean mine, Consolidation Coal Company. Slightly hurt by fall of breast coal.

May 16. Harmon Arnold, driver, aged 21, single, residence Barton, worked at Phoenix mine, of the Phoenix & Georges Creek

Mining Company. Hit on head and breast by prop, knocked out of place by a lump of coal. Not serious.

May 16. Percy Sesny, miner, aged 25, married, residence Mt. Savage, worked at Union No. 2, the New York Mining Company. Foot injured by falling piece of breast coal; slightly.

May 17. Erwin Blank, driver, aged 21, single, residing at Mt. Savage, working in Union Mine No. 2, New York Mining Company. Collar bone injured from falling before cars, outside mine. Slight.

May 17. Jerome Taylor, driver, aged 25, married, residence Frostburg, employed by Consolidation Coal Company at Ocean Mine No. 7. Kicked by mule. Leg broken.

May 20. Patrick McGovern, driver, aged 20, single, residence Frostburg, employed by Consolidation Coal Company at Ocean Mine No. 7. Foot caught in loaded car; slightly hurt.

June 21. David Mann, miner, aged 55, married, residing at Lonaconing, employed by American Coal Company at Jackson mine. Slightly hurt by sticking pick in his right foot.

July 1. John Young, miner, aged 29, widower, residence Lonaconing, employed by Georges Creek Coal and Iron Company at Pine Hill mine, hurt by fall of breast coal. Thigh fractured, pelvic bone fractured, rib fractured. Also internal injuries; a serious case.

July 19. John Sloan, miner and extra driver, aged 35, married, residence Lonaconing, employed by Consolidation Coal Company at Ocean No. 7. Foot caught in loaded car. Slight injuries.

July 20. Robert Nesbitt, miner, aged 20, single, residence Woodland, employed by Consolidation Coal Company ot Ocean Mine No. 7. Caught by falling piece of breast coal; not seriously hurt.

July 26. Reese Harris, timberman, aged 36, married, residence Frostburg, employed by Consolidation Coal Company, at Ocean Mine No. 7. Caught by hoisting rope and leg broken. Serious.

August 2. Wm. G. McMillan, miner, aged 16, single, residence Frostburg, employed by Rockvein Coal Company, now Braddock Coal Company, at "Pine City" mine. Hand injured; run over by empty car.

August 10. Reese Bevans, miner, aged —, single, residence Frostburg, employed by Consolidation Company, at Ocean Mine No. 1. Foot slightly hurt by fall of breast coal.

August 30. Henry Spencer, driver on tramroad, aged 14, single, residence Dill, W. Va., employed by Blaine Mining Company at North American Mine. While crossing bridge across Potomac river with trip of empty cars, the front car jumped the track, throwing him over the bridge to the river bed below, breaking his left leg in two places, above and below the knee, and fracturing his left wrist.

September 18. John Bond, miner, aged 35, married, residence Lonaconing, employed at Jackson mine by American Coal Company. Slight injuries to hand by falling prop.

September 28. Robert Gibson, miner, aged —, married, residence Gilmore, employed at Ocean Mine No. 1 by Consolidation Coal Company. Arm slightly hurt by fall of breast coal.

September 29. Harry Probert, timberman, aged 49, married, residence Lonaconing, employed by Georges Creek Coal and Iron Company at Mine No. 10. Leg broken by fall of top coal.

September 30. Joseph Stewart, coupler at bottom of slope, aged —, married, residence Midland, employed at Ocean No. 1 by Consolidation Coal Company. Leg crushed by being struck by rope.

October 13. George Tippen, miner, aged 17, single, residence Frostburg, employed by Consolidation Coal Company at Hoffman mine. Both feet hurt by fall of breast coal; not serious.

October 17. David Brooks, roadsman, aged 36, single, residing at Barton, employed at Moscow mine by Piedmont Mining Company. Run over by empty mine car. Not seriously hurt.

October 22. Thomas Connolly, miner, aged 40, married, residence Bloomington, employed by Davis Coal and Coke Company at Buxton mine. Hurt by fall of draw-slate, dislocated spine; was at first thought could not recover, but at present is said to be doing well.

October 22. John Graham, driver, aged 26, married, residence Frostburg, employed by New York Mining Company at Union Mine No. 2. An empty car knocked out a prop, a little slate falling bruised his hand slightly.

November 11. Paul Chauft, miner, aged 25, married, residence Frostburg, employed at Union Mine No. 1 by Union Mining Company. Fall of top coal, with slight injuries.

December 12. Dennis Eagan, miner, aged 20, single, residence Savage, West Va., employed at Buxton mine by Davis Coal and Coke Company. Leg broken—hurt by rope.

December 12. John L. Weimer, miner, aged 58, married. Residence Savage, W. Va., employed at Buxton mine by Davis Coal and Coke Company. Arm broken in accident with haulage rope.

1905.

January 6. John D. Warnick, miner, aged 39, single, residence Barton, employed by American Coal Company at Jackson mine. Fall of roof coal disabled his right arm.

January 21. Ewen Wilson, driver, aged —, married, residence Gilmore, employed by Consolidation Coal Company at Ocean Mine No. 1. Leg broken by fall of roof coal.

January 26. Jethro Jeffries, driver, aged 22, single, residence Frostburg, employed at Union Mine No. 2 by New York Mining Company. Coat caught on brake hanger and dragged him to a close place in the "rib." Not seriously hurt.

January 27. George Douns, miner, aged 18, single, residence Finzel, Md., employed at Mt. Savage Fire Clay Mine by Union Mining Company. Loss of one eye by premature explosion.

February —. Frank Olack, miner, aged —, married, residence Stoyer, Md., employed at Alice mine by Stoyer Run Coal Company. Injured by piece of slate falling; leg broken.

February 22. James Grindle, miner, aged 60, married, residence Lonaconing, employed by Piedmont-Georges Creek Coal Company at Washington Mine No. 3. Seriously injured by fall of breast coal; leg broken and otherwise hurt.

February 23. Robert Egler, car checker, aged 60, married, residence Allegany, employed at Union Mine No. 2 by New York Mining Company. Hand caught by wheel; not seriously hurt.

February —. Edward White, driver, aged 41, married, residence Ocean, employed at Ocean Mine No. 1 by Consolidation Coal Company. Leg broken by fall of breast coal.

March 16. Samuel Patterson, miner, aged 45, married, residence Moscow, employed at Caledonia mine by American Coal Company. Caught by rope on plane; leg broken.

April 6. Wardon Smith, miner, aged 25, single, residence Deer Park, Md., employed at North American mine by Blaine Mining Company. Left shoulder dislocated, face and right arm bruised seriously, by fall of coal.

April 13. Louis H. Biddle, miner, aged 23, married, residence Westernport, employed by Cumberland-Georges Creek Coal Company at Penn Colliery. Leg broken above knee, getting off runaway trip of mine-cars.

76

No.	Date.	Name of Mine.	Name of Company.
	1904		
1	**May**	Jackson...........	American Coal Co.
2	**May**	Hoffman..........	Consolidation Coal Co.
3	**May**	Ocean No. 1.......	Consolidation Coal Co.
4	**May**	Phoenix...........	Phoenix & Georges Creek Mining Co.
5	**May**	Union No. 2.......	New York Mining Co.
6	**May**	Union No. 2.......	New York Mining Co.
7	**May**	Ocean No. 7.......	Consolidation Coal Co.
8	**May**	Ocean No. 7.......	Consolidation Coal Co.
9	**June**	Jackson...........	American Coal Co.
10	**July**	Pine Hill..........	Georges Creek Coal & Iron Co.
11	**July**	Ocean No. 7.......	Consolidation Coal Co.
12	**July**	Ocean No. 7.......	Consolidation Coal Co.
13	**Aug.**	Pine City.........	Braddock Coal Co.
14	**July**	Ocean No. 7......	Consolidation Coal Co.
15	**Aug.**	Ocean No. 1.......	Consolidation Coal Co.
16	**Aug.**	North American...	Blaine Mining Co., Garrett County.
17	**Sept.**	Jackson...........	American Coal Co.
18	**Sept.**	Ocean No. 1.......	Consolidation Coal Co.
19	**Sept.**	Mine No. 10.......	Georges Creek Coal & Iron Co.
20	**Sept.**	Ocean No. 1.......	Consolidation Coal Co.
21	**Oct.**	Hoffman..........	Consolidation Coal Co.
22	**Oct.**	Moscow...........	Piedmont Mining Co.
23	**Oct.**	Burton...........	Davis Coal & Coke Co.
24	**Oct.**	Union No. 2.......	New York Mining Co.
25	**Nov.**	Union No. 1.......	Union Mining Co.
26	**Dec.**	Buxton...........	Davis Coal & Coke Co.
27	**Dec.**	Buxton...........	Davis Coal & Coke Co.
	1905		
28	**Jan.**	Jackson	American Coal Co.
29	**Jan.**	Union No. 2.......	New York Mining Co.
30	**Jan.**	Ocean No. 1.......	Consolidation Coal Co.
31	**Jan.**	Fire Clay.........	Union Mining Co.
32	**Feb.**	Alice.............	Stoyer Run Coal Co., Garrett County.
33	**Feb.**	Washington No. 3..	Piedmont & Georges Creek Coal Co.
34	**Feb.**	Union No. 2.......	New York Mining Co.
35	**Feb.**	Ocean No. 1.......	Consolidation Coal Co.
36	**Mar.**	Caledonia.........	American Coal Co.
37	**April**	North American...	Blaine Mining Co.
38	**April**	Penn Colliery......	Cumberland & Georges Creek Coal Co.

weighing is greatly lessened, and the feeling of doubt that has always existed may in large part be eliminated.

Weights and Weighing.

Before taking up the work of giving a history of my efforts to establish the fact whether the coal mined is being accurately and honestly weighed, it may be of interest to the industry to quote some little historical matter, from a work called "Facts and Factors in Accurate Weighing," compiled by H. A. Foss, weighmaster of the Chicago Board of Trade, for a copy of which I am indebted to the United States Bureau of Weights and Measures. In this work the author says: "There is no use trying to travel back to the origin of scales; they were a necessary factor of the earliest civilization, and in their simpler forms were as universal as pottery. In the Egyptian Book of the Dead, traced back over six thousand years, the soul of the departed is taught to justify itself before the Gods by a 'Negative Confession,' in which it remarks under oath, 'I have not diminished the measure of grain,' 'I have not added to the weights in the balance,' 'I have not nullified the plummet of the scales.' "

If any of our weighmasters should happen to land before the High Egyptian Court, it is to be hoped he may justify. However ancient the balance and the practices that called for such justification or such perjury, we can claim a tremendous advance in accurate methods of weighing within the last few years.

The first platform scale was invented in England in 1774, by James Edgel. The first American patent for machines to weigh heavy loads was granted in 1831. This patent was closely followed by others covering wagon track and hopper scales. These have been continually improved, until at present we have scales that with anything like proper construction, and ordinary care after being set up, with weighmasters careful and painstaking in the weighing of the coal as they should be, the chance for inaccuracies is greatly lessened, and the feeling of doubt that has always existed may in large part be eliminated.

In August, 1904, three months after I entered upon my duties as Mine Inspector, I visited the United States Bureau of Weights and Measures, in Washington, to gather what information I could, relative to weights and weighing. The information I received was of great value to me, and helped me to perform my duties on this subject. I then visited the Bureau of Weights and Measures in Baltimore, there procuring information of value, and also visited the Fairbanks Scale Company's offices, and from its representatives secured a knowledge of how to test the accuracy of scales. My next move was to procure the necessary test-weights, to test the scales. The law provides that these shall be furnished by the State, but no provision is made for payment therefor. An Act of the Assembly of 1872 established a Bureau of Weights and Measures for Allegany county, and under this law I made application to the Commissioners for Allegany county, to procure 1,000 pounds of standard test weights, which were supplied to me. During November, 1904, with horse and wagon, I hauled these test weights to every scale in Allegany county, and the result of that investigation is appended. This test was made entirely public, as it was always my wish to see as many of the men interested, as possible, both employers and miners, present.

Report of Scales Tested.

DATE.	COMPANY.	MINE.	CONDITION.
Nov. 1904	McMullen Bros	No. 1	Correct.
April 1905	Georges Creek Bald Knob Co.	No. 1	Correct.
Nov. 1904	Midland Mining Co	Trimble	Correct.
" "	Consolidation Coal Co	Tyson	Incorrect, 2 lbs. in Co's. favor, in 2½ tons.
" "	Consolidation Coal Co	Hoffman	Correct.
" "	Consolidation Coal Co	No. 7	Correct.
" "	Consolidation Coal Co	No. B	Correct.
" "	Consolidation Coal Co	No. 8	Correct.
" "	Union Mining Co	Union No. 2	Correct.
" "	Union Mining Co	Union No. 1	Correct.
" "	H. &. W. A. Hitchins	Borden	Correct.
" "	Barton & Georges Creek Valley Coal Co	Carlos	Correct (2 scales).
" "	Midland Mining Co	Enterprise	Correct.
" "	Piedmont & Georges Creek Coal Co.	Washington No. 1	Correct.
" "	Piedmont & Georges Creek Coal Co.	Washington No. 2	Correct.
" "	Piedmont & Georges Creek Coal Co 6.	Washington No. 3	Incorrect, 25 lbs. in 4 tons, in favor of company.
" "	Georges Creek Coal & Iron Co	Columbia	Correct.
" "	Georges Creek Coal & Iron Co	Pine Hill	Correct.
" "	Georges Creek Coal & Iron Co	Engineside	Correct at 500 lbs., but showed 20 lbs. in favor of company at 3½ tons.
" "	American Coal Co	Jackson	Both correct (2 scales).
" "	New Central Coal Co	Koontz	Correct.
" "	Maryland Coal Co	Appleton	Correct.
" "	Maryland Coal Co	Patton	Correct.
" "	Piedmont Mining Co	Pekin	Correct.
" "	Piedmont Mining Co	Moscow	Incorrect, about 8 lbs., in favor of company, in over 3 tons.
" "	Moscow–Georges Creek Coal Co.	Moscow No. 2	Incorrect 4 lbs., in favor of miners in about 2 tons.
" "	W. J. Chapman Coal Co	Swanton	Correct.
" "	American Coal Co	Caledonia	Correct.
" "	Potomac Coal Co	Potomac	Incorrect 3 lbs., in favor of company in over 2tons.
" "	Phoenix Coal Co	Phoenix Nos. 1 and 2	Correct.
" "	Cumberland & Georges Creek Coal Co	Penn Colliery	Correct.
" "	Frostburg Coal Co	Ginseng	Correct.
" "	Piedmont Cumberland Coal Co	Hampshire	Incorrect 4 lbs., in 3 tons, in favor of men.

Tested Blaine Mining Cos. scale at Blaine, Garrett Co. Correct.

Measured cars of Davis-Harvey Coal Co., at Blaine, W. Va., found that Superintendent had agreed to give the miners one ton 5 cwt. on cars, which would not hold the weight. Compromised at one ton 2½ cwt.

Visited Washington No. 1, Piedmont & Georges Creek Coal Co., whose scale had been broken. Tested it and found it correct.

With regard to the instances of inaccuracies shown above, I have the assurances of the respective companies that they have since been corrected by experts, the only persons capable of this work.

There is no evidence of any purpose to defraud, for but few of the scales are incorrect, and those but slightly; not enough to make any difference. No company knew at any time when I would appear to test their scales, nor did they in any way obstruct me in the work of testing, but on the contrary showed me every consideration, and every facility for accomplishing my work.

In July, 1904, a notice was posted by the Consolidation Coal Company at its several mines, instructing their weighmasters to test their scales every morning. I believe this notice is without a parallel in mining in this country, and is especially notable because there is no check-weighman at any mine in this State, all the weighing being done by the companies. I append the notice.

CONSOLIDATION COAL COMPANY.

INSTRUCTIONS TO WEIGHMASTERS.

"Weighmasters operating small scales on which the miners' weight is determined, are expected to test their scales regularly every morning, before beginning work. The test will be made in the following manner, using two 56 pound weights, which should be constantly kept in each weigh-office. These two 56-lb. weights will be placed on the scale alone, and weighed. They will then be removed, and a loaded car run on the scale. After this car is weighed the two weights will again be placed on the scale with the loaded car, and should show a difference of exactly 112 pounds. Should the scale fail to show the correct weight of these 56-lb. weights in either instance, the weighmaster will report at once to the Mining Superintendent's office, at Frostburg, by telephone, stating the amount of error in the scale. Weighmasters will be held responsible for any errors in the weight which may occur except in cases where they have duly notified the Mining Superintendent's office and the scales have not been placed in proper order.

"B. S. RANDOLPH, Mining Superintendent."

This system of testing could be followed by all the other companies at very small expense, and would help to allay the ofttimes honest suspicion of the miners. There is scarcely a miner, who does not at times feel that he is not getting credit for all the coal he puts on his car; there is not a scale in the State that is not liable to get out of trim at any time; nor a weighmaster who is perfect, or free from mistakes in weighing of cars; so too many safeguards cannot be thrown about the weighing of the miners' coal. The weight represents the miner's only capital: the product of his skill and muscle; and he should have his full measure of justice, neither more nor less.

At Ocean No. 7, the Consolidation Coal Company has installed a Fairbanks self-registering scale. The weighmaster only copies what the scale shows, so in that mine at least, the saying, "It's not in the scale, but in the pencil," hardly obtains. The output at this mine is very large, reaching about 4,000 tons a day, and this scale greatly facilitates the weighing. The present Superintendent, J. C. Brydon, installed this scale.

While I have received complaints here and there about the weight, generally I have found it a mere matter of opinion—the most vexatious of all the problems in mining to-day. At one mine in the region the few miners employed (it is a small operation) quit work, on account of the weight. The next morning I went to the mine, bringing my test weights, and found the scale correct. The only inaccuracy I discovered was, the company was taking too much weight for the empty cars. This I corrected, the miners going to work next morning.

Miners have no right to embarass a company by stopping a mine upon suspicion. Had they made complaint to me and kept on working, I would have seen that they were justly dealt with, so far as I was able to do.

I have devoted a great deal of time to the weight question, believing a better understanding necessary, and being anxious to work for the time when complaints will be rare, because there will be little cause for them. Owing to human fallibility, however, I fear the time will never come when miner, shipper, carrier and consumer will lie down in continuing amity; but with all interests working together, co-operating to avoid mistaken weights, faulty and leaky cars, both in mines and on railroads, there is hope for happier times in the coal trade.

FIRE CLAY MINES.

BIG SAVAGE FIRE BRICK COMPANY.

John N. Benson, Superintendent. Joseph Maury, Foreman.

This company has a fire-clay mine in that famous clay known as the "Mt. Savage Fire Clay," located on the C. & P. R. R., a short distance east of Frostburg, at Allegany. This promises to make one of the thriftiest and best towns in Allegany county. A tramway, or plane, operated by an engine that is stationed at the mine, conveys the clay to the brickyard, at Allegany. This tramroad is over two miles in length. The most of the coal used at the brick plant is brought down this road. During my visits there only a few men were working, barely enough to bring it within the scope of the law. The ventilation is by natural means, and is none of the best, but the company intends improving this in the near future. A number of comfortable houses have been built by the company at Allegany, greatly adding to the appearance and value of the place.

SAVAGE MOUNTAIN FIRE BRICK COMPANY.

C. H. Shuckhart, Superintendent.

The mines of this company are about three miles west of Frostburg, on the National Pike. From the mines there is a tramroad about a half-mile in length, where the coal is dumped into wagons, and hauled thence down the Pike to the brick plant, on Bowery street, in Frostburg. A new tunnel has been driven to get at more fireclay, and also to do away with the old tunnel. The new opening will have better drainage, a very important matter in mining fireclay. This plant has been operated since 1863, for forty-two years, and is now working the fifth opening. A matter worthy of note is the fact that in all that time not one man has been killed, and only one injured, losing an eye by going into a delayed blast.

The mine is in Garrett county, and the clay is the same as the Mt. Savage fireclay. About ten men work here, and conditions are generally good.

UNION MINING COMPANY'S FIRECLAY MINE.

Henry Shriver, Superintendent. James Yantz, Mine Foreman.

There are but four openings here at present, numbers 1 and 3 being worked out at present. The general condition of a fireclay mine is in no wise like a coal mine. The hard clay is generally between soft clay layers, below and above, although sometimes changing position. In this region, these clays are generally wet, and with the action of the water and air, disintegrate, and make a very soft and muddy bottom, and very dangerous top. Number 5 mine here is the worst, it being the largest, and having been very carelessly worked years ago. It is now highly dangerous, and very expensive to operate. Despite this fact, there have been very few accidents, and but one that proved fatal; which is more fully described under the head of "Fatal Accidents." About as many laborers are employed renewing timbers and cleaning up roads in these mines, as miners. Ventilation is generally good. It is from these mines that the fireclay is mined that has made famous the "Mt. Savage Fire Brick," the standard of brick excellence throughout this country. A fact worth mentioning is that the longest inclined plane in this country, and perhaps in the world, leads from the mines down to the tramroad—about one and one-half miles in length. The small locomotive used on the tramroad takes the clay to the brick yard, a distance of about two and one-half miles. 120 miners and laborers are employed in this operation.

There are but three fireclay mines in the State at present, one at Mt. Savage, operated by the Union Mining Company; one at Allegany, operated by the "Big Savage Fire Brick Company," and the third at Frostburg, the Savage Mountain Fire Brick Company's plant. All work the famous Mt. Savage fireclay.

STATISTICS OF FIRE-CLAY MINING.

Operating Company.	Miners	Laborers	Total	Output Tons	Accidents		Days' Work
					Fatal	Non-ft.	
Union Mining Co.	45	105	150	48,000	1	1	285
Big Savage Fire Brick Co.	17	8	25	10,455	0	0	205
Savage Mt. Fire Brick Co.	7	5	12	10,000	0	0	275

It will thus be seen that 68,000 tons of fireclay were mined by 69 miners and 118 laborers. 187 were employed, with one fatal accident, a proportion of 5.35 per cent. to the thousand, or much higher than the mortality in coal mining in our State. This report is exclusive of those employed in the manufacture of brick. The mines work almost every day, having worked an average of 283 days in 1904. The employes and companies get along very harmoniously. There is a coal seam lying just above the fireclay, about three feet in thickness called by some the Mt. Savage coal, and is mined for local purposes at the mines, such as furnishing steam, keeping up fires in winter, etc.

All these mines are in Garrett county, at the northeastern end, and is one of the many resources of Allegany and Garrett counties that yet is practically undeveloped. The clay is from 8 to 14 feet thick, averaging about ten feet; although sometimes it disappears entirely.

	Mining Machines.
McMullen B	
Cumberland	
Midland Mi	
Midland Mi	
New York	
Union Mini	
Consolidatio	
Consolidatio	
Consolidatio	
Consolidatio	Mining machines used are of the Puncher type.
Consolidatio	
Consolidatio	23 Ingersoll.
Consolidatio	4 Harrison.
Consolidatio	4 Sullivan.
Consolidatio	Total 31 Machines.
Consolidatio	Of the 1,833,372 tons mined by the Consolidation Coal Co., 401,321 tons was mined by machines and 1,432,051 tons by pick mining.
Consolidatio	
Piedmont &	
Piedmont &	
Piedmont &	
H. & W. A.	
Bowery Co	
Barton & G	
Braddock C	
Georges Cr	
W. J. Chap	
New Centr	
Maryland C	

Table of Accidents for each Thousand Employees in Bituminous Coal Mining in Maryland for the Past 15 Years and of other States for the Ten Years from 1890 to 1899.

	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904
Colorado	2.27	4.40	4.49	6.31	3.06	3.05	10.07	4.99	3.23	5.60	......	......	......	......	......
Illinois	1.85	1.82	1.69	1.95	2.21	2.35	2.33	2.04	2.14	2.27	......	......	......	......	......
Indiana	.76	.72	2.50	2.96	....	2.92	3.94	2.00	2.63	2.07	......	......	......	......	......
Iowa	1.31	2.08	2.58	2.77	1.85	1.82	2.62	2.45	3.38	2.48	......	......	......	......	......
Kansas	.77	2.08	......	1.52	2.58	1.11	1.36	.71	1.95	1.57	......	......	......	......	......
Kentucky	1.50	2.49	1.04	6.41	1.25	1.02	.79	1.55	.67	.83	......	......	......	......	......
Maryland	2.08	1.54	1.52	1.23	1.69	2.30	1.58	1.17	.89	1.08	1.33	2.05	1.98	2.20	1.67
Missouri	1.67	2.62	2.48	2.70	2.49	1.84	2.41	1.22	1.22	1.80	......	......	......	......	......
Ohio	1.89	1.83	1.56	1.11	1.43	1.79	1.44	1.39	1.77	2.03	......	......	......	......	......
Pennsylvania	2.18	3.21	1.69	1.60	1.44	1.83	2.14	1.72	2.38	2.82	......	......	......	......	......
Tennessee	......	4.32	2.84	2.21	2.53	7.81	3.07	1.58	2.43	2.60	......	......	......	......	......
West Virginia	......	3.16	2.76	4.20	2.98	3.97	2.68	2.89	3.86	3.55	......	......	......	......	......
Great Britain	1.89	1.05	1.49	1.55	1.60	1.49	1.48	1.34	1.28	1.25	......	......	......	......	......
Germany	2.07	2.32	1.95	2.18	1.86	2.12	2.18	2.06	2.54	......	......	......	......	......	......

In compiling this death rate, I take the accidents from Jan. 1st of each year, while the Inspector under the present law reports all accidents up to the 1st of May each year. In order to get the death rate accurately, to make a comparison with other years, you must base it on the amount of coal mined, and number of employees, from Jan. 1st to Dec. 31st of each year. In 1904 three of the fatal accidents occurring were in the Fire Clay Mines.

List of Mining Officials in Allegany Connty.

Company.	Principal Office	President's Name and Address.	Superintendent's Name and Address.
McMullen Bros.	Cumberland, Md.	H. A. McMullen, Cumberland, Md.	D. F. McMullen, Mgr., Cumberland, Md. James Barrett, Supt., Frostburg, Md.
Georges Creek Bald Knob Coal Co.	Baltimore, Md.	Chas. Mackall, Baltimore, Md.	Jerry Wiland, Mt. Savage, Md.
Midland Mining Co.	Cumberland, Md.	W. A. Somerville, Cumberland, Md.	W. A. Somerville, Cumberland, Md.
New York Mining Co.	Baltimore, Md.	H. Crawford Black, Baltimore, Md.	Harry Shriver, Mt. Savage, Md.
Union Mining Co.	Baltimore, Md.	H. Crawford Black, Baltimore, Md.	Harry Shriver, Mt. Savage, Md.
Consolidation Coal Co.	Baltimore Md.	C. W. Watson, Baltimore, Md.	J. C. Brydon, Frostburg, Md.
Piedmont & Georges Creek Coal Co.	Frostburg, Md.	M. P. Fahey, Westernport, Md.	J. S. Brophy, Frostburg, Md.
H. & W. A. Hitchins Coal Co.	Frostburg, Md.	J. S. Brophy, Frostburg, Md.	John Malloy, Frostburg, Md.
Barton & Georges Creek Valley Coal Co.	Baltimore, Md.	H. Crawford Black, Baltimore, Md.	Adams Hitchins, Frostburg, Md.
Bowery Coal Co.	Frostburg, Md.	Uriah Jones, Frostburg, Md.	Uriah Jones, Frostburg, Md.
Braddock Coal Co.	Cumberland, Md.	A. L. House, New York, N. Y.	F. C. Harwood, Cumberland, Md.
Wachovia Coal Co.	Baltimore, Md.	W. J. Young, Greensboro, N. C.	W. H. McClure, Cumberland, Md.
Georges Creek Coal & Iron Co.	Baltimore, Md.	J. J. Alexander, Baltimore, Md.	R. L. Somerville, Lonaconing, Md.
New Central Co.	New York, N. Y.	M. Baxter, Jr., New York, N. Y.	Duncan Sinclair, Midlothian, Md.
Maryland Coal Co.	New York, N. Y.	T. E. Knapp, New York, N. Y.	Frank E. Brackett, Lonaconing, Md.
American Coal Co.	New York, N. Y.	W. de L. Walbridge, New York, N. Y.	Isaac Bradburn, Lonaconing, Md.
Piedmont Mining Co.	Baltimore, Md.	W. H. Gorman, Baltimore, Md.	Geo. P. King, Piedmont, W. Va.
Moscow—Georges Creek Coal Co.	Cumberland, Md.	W. A. Somerville, Cumberland, Md.	W. A. Somerville, Cumberland, Md.
Potomac Coal Co.	Baltimore, Md.	H. Crawford Black, Baltimore, Md.	Henry Shriver, Mt. Savage, Md.
W. J. Chapman Coal Co.	Baltimore, Md.	W. J. Chapman, Baltimore, Md.	Edward Clark, Barton, Md.
Frostburg Coal Co.	Philadelphia, Pa.	T. Lewis Thomas, Philadelphia, Pa.	W. E. Thomas, Piedmont, W. Va.
Phoenix & Georges Creek Coal Mining Co	Cumberland, Md.	A. D. Althouse, Philadelphia, Pa.	Jno. Rankin, Piedmont, W. Va.
Cumberland Georges Creek Coal Co.	Camden, N. J.	F. A. Von Boyneburgh, Avelon, N. J.	J. L. Conrad, Piedmont, W. Va.
Piedmont Cumberland Coal Co.	Philadelphia, Pa.	Chas. H. Scull, Philadelphia, Pa.	Jas. McDonald, Barton, Md.
Davis Coal & Coke Co.	Baltimore, Md.	F. S. Landstreet, N. Broadway, N. Y.	O. Tibbetts, Savage, W. Va.

List of Mining Officials in Garrett County.

Name of Company.	Principal Office.	Name and Address of President.	Name and Address of Superintendents.
J. C. Pattison, Coal Co.	Bloomington, Md.	G. C. Pattison, Bloomington, Md.	Carroll Pattison, Bloomington, Md.
Monroe Coal Mining Co.	Bethlehem, Pa.	Chas. M. Dodson, Bethlehem, Pa.	G. C. McFarlane, Barnum, W. Va.
Davis Harvey Coal Co.	Blaine, W. Va.	J. W. Davis, Blaine, W. Va.	J. W. Davis, Blaine, W. Va.
Garrett County Coal & Mining Co.	Bethlehem, Pa.	E. L. Bullock, Audenried, Pa.	N. B. Douglas, Dodson, Md.
Upper Potomac Coal Co.	Philadelphia, Pa.	R. S. Hubbard, Philadelphia, Pa.	R. Y. Williams, Upper Potomac, W.Va.
Stoyer Run Coal Co.	Stoyer, Md.	W. S. Thomas, Harrisburg, Pa.	Thomas, Robinson, Stoyer, Md.
Nethkins Coal Co.	Piedmont, W. Va.	Nethkins, Elk Garden, W. Va.	John Jose, Piedmont, W. Va.

List of Mining Officials of Fire Clay Mines.

Union Mining Co.	Baltimore, Md.	H. Crawford Black, Baltimore, Md.	Henry Shriver, Mt. Savage, Md.
Big Savage Fire Brick Co.	Frostburg, Md.	Davidson Armstrong, Frostburg, Md.	J. H. Benson, Gen. Mgr., Frostburg, Md.
Savage Mountain Fire Brick Co.	Frostburg, Md.	Chas. C. Gorsuch, Westminster, Md.	C. H. Shuckhart, Supt., Frostburg, Md.

The Mine Inspection Law.

CHAPTER 124.

An Act to repeal and re-enact with amendments Sections 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 209A, 209B, 209C and 209D of Article No. One of the Code of Public Local Laws, entitled "Allegany County," sub-title "Mine Inspector," as the same were enacted by Chapter thirty-four of the Acts of 1898, and to re-enact the same under the title "Mining and Mine Inspector," said Sections as hereby re-enacted and amended to be known as Sections 196, 197, 198, 199, 200, 201, 202, 203 ,204, 205, 206, 207, 208, 209, 209A, 209B, 209C, 209D, 209E, 209F, 209G, 209H, 209I, 209J, 209K, 209L, 209M, 209N, 209O, 209P, 209Q, and to repeal and re-enact with amendments Sections 150 to 164 C, all inclusive, of Article number twleve of the Public Local Laws, title "Garrett County," sub-title "Manufactures and Mines," as the same were enacted by Chapter thirty-four of the Acts of 1898, and to add new sections to to re-enact and amend the same by enacting the following Sections, in lieu thereof, to wit, Sections 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 164A, 164B, 164C, 164D, 164E, 164F, 164G, 164H, 164I, 164J, 164K, 164L, 164M, 164N, 164O and 164P.

Section 1. Be it enacted by the General Assembly of Maryland, That Sections 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 209A, 209B, 209C, 209D, of Article No. One of the Public Local Laws entitled "Allegany County," sub-title "Mine Inspector," as the same were enacted by Chapter 34 of the Acts of 1898, be and the same are hereby repealed, and that Sections 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 164A, 164B, and 164C of Article Twelve of the Public Local Laws entitled "Garrett County," sub-title "Manufactures and Mines," as the same were enacted by Chapter 34 of the Acts of 1898, be and the same are hereby repealed, and that Sections 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 209A, 209B, 209C, 209D, 209E, 209F, 209G, 209H, 209I, 209J, 209K, 209L, 209M, 209N. 209O, 209P and 209Q are hereby enacted and added to Article Number One of the Code of Public Local Laws, title Allegany County," sub-title "Mine Inspector," to read as hereinafter set forth respectively, and that Sections 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 164A 164B, 164C, 164D, 164E, 164F, 164G, 164H, 164I, 164J, 164K, 164L, 164M, 164N, 164O and 164P be and they are hereby enacted and added to Article Number Twelve of the Public Local Laws, title "Garrett County," sub-title "Manufactures and Mines," to read as hereinafter set forth, respectively, to wit:

APPOINTMENT OF MINE INSPECTOR.

Section 196 of Article 1 and Section 150 of Article 12. That the Governor shall, by and with the advice and consent of the Senate, appoint one Mine Inspector for the counties of Alleany and Garrett, who shall hold his office for two years from the date of his appointment. No person shall be eligible to the office of Mine Inspector until he shall have attained the age of thirty years. He shall possess a competent and practical knowledge of the different systems of mining and properly ventilating coal mines in said counties, and the nature and constituent parts of the various gases found in coal mines, and of the various ways of expelling the same from said mines, and shall have had five years' practical experience as a miner in one or both counties combined next immediately preceding his appointment, and shall receive an annual salary of fifteen hundred dollars, payable quarterly by warrant of the Comptroller upon the State Treasury for the same. Before entering upon the discharge of the duties of his office the said Mine Inspector shall take the oath provided in the Constitution of the State, and shall give bond in the sum of two thousand dollars, with sureties to be approved by the Chief Judge of the Fourth Judicial Circuit of Maryland. Said Mine Inspector while in office shall not be interested in the operation of any mine, or act as land agent, superintendent or manager of any mine, and it shall be his duty to make a report to the Governor of his proceedings in office and to set forth in such reports all such information that may be proper or beneficial, and also to make such recommendations and suggestions as he may consider important as to legislation on the subject of mining.

DUTIES OF MINE INSPECTOR.

Section 197 of Article 1 and Section 151 of Article 12. Said Mine Inspector shall devote the whole of his time to the duties of his office. It shall be his duty to examine each mine in said counties as often as possible, but a longer period of time than two months shall not elapse between said examinations to see that all the provisions of this Act are observed and strictly carried out, and he shall make a record of all examinations of mines, showing the condition in which he finds them, especially with reference to ventilation and drainage, the number of persons employed in each mine, the extent to which the law is obeyed and progress made in the improvement of mines, the number of serious accidents and the nature thereof, the number of deaths resulting from injuries received in or about the mines, with the cause of such accident or death, which record completed to the first day of May of each and every year shall be filed with the Governor of the State; and one thousand copies of said report shall be printed for distribution at once by the Inspector, and the cost thereof shall be paid by the Treasurer upon the warrant of the Comptroller.

Section 198 of Article 1 and Section 152 of Article 12. It shall be the duty of the Mine Inspector, on examination of any mine, to make out a written or partly written and partly printed report of the condition in which he finds such mine and post the same at the mouth of the mine properly protected from the weather. The said report shall give the date of the visit, the number of cubic feet of air in circulation and where measured, and that he has measured the air at the cut-through of one or more rooms in each heading or entry, and such other information as he shall deem necessary, and the said report shall remain posted in the office or conspicuous place, and may be examined by any person employed in or about the mine.

Section 199 of Article 1 and Section 153 of Article 12. In case the Inspector becomes incapacitated to perform the duties of his office or receives a leave of absence from the Governor, it shall be the duty of the Governor to appoint, upon said Mine Inspector's application or that of five miners or five operators, some competent person to fill the office of Inspector until the said Inspector shall be able to resume the duties of his office, and the person so appointed shall be paid in the same manner as is hereinbefore provided for the Inspector of Mines.

Section 200 of Article 1 and Section 154 of Article 12. That the Mine Inspector may be enabled to perform the duties herein imposed upon him he shall have the right at all times to enter any coal mine to make examination or obtain information, and upon the discovery of any violation of this Act, it shall be the duty of said Mine Inspector to report the same to the Grand Jury for the proper county, and the Grand Juries for each of the said counties are hereby directed to summon said Mine Inspector before them at each term of Court, and the respective Courts of Allegany and Garrett counties shall call this section to the attention of each Grand Jury.

Section 201 of Article 1 and Section 155 of Article 12. Whenever loss of life or serious personal injury shall occur by reason of any accident whatever, in or connected with any coal mine, it shall be the duty of the person having charge of said mine to report the fact without delay, to the Inspector, and the said Inspector shall, if he deem necessary from the facts reported, and in all cases of loss of life, immediately go to the scene of said accident and render every possible assistance to those in need.

Section 202 of Article 1 and Section 156 of Article 12. That the Mine Inspector shall also be an inspector of weights and measures at all mines now or hereafter opened in said counties, and shall weigh several cars of coal mined therein once every two months, on the scales of the different mines, or when requested to do so especially by any miner or operator, in order to test the accuracy of said scales, and the State shall supply said Mine Inspector with the required weights and apparatus for testing scales, and to do any other act he may deem necessary to ascertain whether the coal be justly weighed at said mine, and it shall be the duty of every person acting as weighmaster for the owner, lessee or agent of said mines, before entering upon the performance of his duty as weighmaster or check-weighman, or before making any report, to make oath before some justice of the peace, in the proper county, that he will perform the duty of weighmaster or check-weighman as prescribed by this Act, at such mines, with honesty and fidelity, and will keep a true and accurate account of all the coal so weighed by him, and will credit and allow the full weight, and no more, of coal in each mining car, to the party or parties who mined the same at the rate of two thousand two hundred and forty pounds per ton, and all fractions thereof be counted in hundred weights, a copy of which said oath shall be posted up in said weigh-office, where such coal is weighed. But the said oath of weigh-master or check-weighman shall be understood and construed as only requiring said weighmaster or check-weighman to allow and credit said fractions of tons in whole hundred weights (cwts.) in manner following, namely: Where the odd pounds in any mining cars in excess of the whole hundred weight therein, shall equal or exceed fifty-six pounds, the said weighmaster or check-weighman shall credit such miner with a whole hundred weight, for such odd pounds, but where such odd pounds, less than a whole hundred weight (cwt.) shall be less than fifty-six pounds, then such weighmaster or check-weighman shall give such miner no credit whatever for such odd pounds; and it shall be the duty of said weighmaster and of any check-weighman to perform the several acts and matters prescribed in said affidavit. Provided that every car when weighed shall be uncoupled and stopped on the scales; but the Mine Inspector may make special regulations as to the stopping of cars when necessary.

Section 203 of Article 1 and Section 157 of Article 12. The Mine Inspector shall have power to examine the weighing sheets on which the weight of the miner's cars are registered, and the monthly aggregate of coal weighed on such scales, and shall compare such aggregate monthly weighings with the manifest or shipping reports of the operators, and thus determine from time to time whether the coal is accurately weighed.

WEIGHING OF COAL.

Section 204 of Article 1 and Section 158 of Article 12. That it shall be lawful, however, notwithstanding the provisions of this Act, in relation to weighmaster and the weighing of coal, for any lessee, owner, individual or agent of any mine in said counties of Allegany and Garrett to contract with the miners to mine coal therein or therefrom by measurement; and it shall also be lawful for any owner, lessee or agent of any mine in said counties, at or in which not more than ten miners are employed at one time, in contract with the miner or miners employed therein by the day, week or month instead of by weight, and in all such cases when the compensation of the miners by their contract or agreement fixed by the day, week or month, be ascertained by the cubic yard or other measurement, as hereinbefore provided, it shall not be obligatory upon such owner, lessee or agent of such mine to provide any weighmaster or weigh the coal mined in such shaft or mine, or taken therefrom; but the mine cars used in any such mine worked by shaft shall be measured by a sworn measurer, and said owner, lessee or agent, shall cause the capacity of each of said mining cars to be plainly stamped or branded thereon.

Section 205 of Article 1 and Section 159 of Article 12. That at any time upon the request of a majority of the miners then employed in any coal mine in said counties of Allegany and Garrett, the agent, lessee or operator of said coal mine shall permit said miners (but at their own expense) to provide and keep in the said weigh house at said mine, at the scales kept thereat, for such length of time as such miners may require, a check-weighmaster, who shall have the right at all times to be present when the coal mined at each mine is being weighed by the weighmaster of said mine, and to examine the scales thereof, and to take and keep a full statement of the weight of each mining car load of coal, as shown by the said scales when the coal is being weighed thereon, by said weighmaster, and upon the discovery of such check-weighmaster of any wilful violation of any of the provisions of this Act by the weighmaster employed at such mine, it shall be the duty of such check-weighmaster to immediately lay all such information before the State's Attorney of the county in which such weigh house is situated, or the Mine Inspector, for their action upon the same.

Section 206 of Article 1 and Section 160 of Article 12. That it shall be the duty of every person acting as weighmaster in any of the said mines, to keep in ink or indelible pencil a list or statement of the number of mning cars, and the weight of coal in cars mined each day, and the person mining the same and place and keep said list at the weigh house, where said coal is weighed, where the parties interested therein may inspect it; which lists shall be kept for reference and inspection by all persons interested therein for at least thirty days time. And it shall be the duty of every operator to provide correct and accurate scales, upon which all coal mined in said mine shall be weighed in the state in which it is mined, before the same shall be dumped or taken from the mining cars, in which the miners have loaded the same; and no operator shall dock any miner in excess of five hundred pounds (cwts.) on any one car, and it shall be the duty of the operator to cause the average weight of each empty car used at any such mine to be plainly stamped on the outside of each car.

PROPPING AND CARE REQUIRED.

Section 207 of Article 1 and Section 161 of Article 12. That the owner, lessee or agent of every mine in operation in the counties of Allegany and Garrett, shall furnish at their own expense, all props and all requisite timber required to be used in the working of said mines, and as the miners employed to work therein proceed with the working of their excavations it shall be the duty of the owner, lessee or agent of said mine, to furnish a sufficient quantity of props and timber of suitable character at the place in the heading, room, cross-cut or other excavation in the mine, where the miners are at work, and the owners, lessee or agent operating any such mine shall, at their own expense, properly timber any headings, rooms, pillars, or other excavations, not recently worked, and lay up roads by contract or otherwise to or in the same, previous to the miners starting new or further work of excavations therein; and said owner, lessee or agent shall construct each heading hereinafter driven in every mine of sufficient width and height, with at least two feet and a half of room on the brake side of such heading, or if no brakes be used, then upon some given side of such heading, so as to admit of the passage of the drivers who may be engaged in driving along said heading. And it shall be the duty of every agent, lessee, owner, operator, weighmaster, or mining boss, overseer, roadman, driver, miner or any other person working or engaged in any employment whatever in or about the said mines in said Allegany and Garrett counties, or tram road or incline planes leading therefrom, to observe all practical care, caution and prudence in the work in which they may be engaged so that all lives, health and safety of themselves and their co-laborers, and the property of the owners in and about said mines, may be protected so far as practicable, consistent with the dangerous character of the work, from loss or injury, and it shall be the duty of all miners engaged in any of the said mines to carefully prop and timber all rooms, headings and other excavations wherein they may be working, as close up to their work as may be reasonably practicable, so as to guard, as far as practicable, against all accidents from fall of roof, side or breast coal or slate, earth or other surrounding matter, and any miner or other person employed or working in or about said mines, who shall be guilty of any wilful negligence in respect of any of the matters specified in this section, whereby the lives, health or safety of any co-laborers in and about any of said mines or any of the property of the owners in or about said mines may be lost, destroyed or injured, or unnecessarily jeopardized, shall be liable to indictment, and upon conviction to be fined as hereinafter provided, and whenever in any case it shall be brought to the notice of the Mine Inspector that any person is violating any of the provisions of this section, he shall at once order such person to take immediate steps to secure the safety of the persons or property so jeopardized, and in case the refusal of any person to comply with such order, it shall be the duty of said Inspector to proceed at once to have such offender arrested and punished in accordance with the provisions of this Act.

MAP OF MINE.

Section 208 of Article 1 and Section 162 of Article 12. The operator or superintendent of every coal mine shall make, or cause to be made by a competent engineer or surveyor, an accurate map or plan of such coal mine, not smaller than a scale of two hundred feet to an inch, which map shall show as follows: First, all measurements of said mine in feet, or decimal parts thereof. Second, all the openings, excavations, shafts, tunnels, slopes, planes, main entries, cross entries, and rooms in said mines. Third, by darts or arrows made thereon by a pen or pencil, the direction of air currents in the said mine. Fourth, an accurate delineation of the boundary lines so far as possible between said coal mine and all adjoining mines or coal lands, whether owned or operated by the same operator or other operator, and the relation and proximity of the workings of said mine to every other adjoining mine or coal land. Fifth, the bearings and length of each tunnel or entry and boundary or property lines. The said map or plan, or a true copy thereof, shall be kept in the general mine office by the said operator or superintendent for use of the mine inspector, and for the inspection of any person or persons working in said mine whenever said person or persons shall have cause to fear that any working place is becoming dangerous by reason of its proximity to other workings that may contain water or dangerous gas.

Section 209 of Article 1 and Section 163 of Article 12. At least once in every six months, or oftener if necessary, the operator or superintendent of each mine shall cause to be shown accurately on the map or plan of said coal mine, all the excavations made therein during the time elapsing since such excavations were last shown upon said map or plan; and all parts of said mine which were worked out or abandoned during said elapsed period of time shall be clearly indicated by colorings on said map or plan; and whenever any of the workings or excavations of said coal mine have been driven to their destination, a correct measurement of all such workings or excavations shall be made promptly and recorded in a survey book prior to the removal of the pillars or any part of the same from such workings or excavations.

MUST BE TWO OPENINGS.

Section 209A of Article 1 and Section 164 of Article 12. It shall not be lawful for the operator, superintendent or mine foreman of any coal mine to employ more than twenty persons within said coal mine, or permit more than twenty persons to be employed therein at any one time, unless they are in communication with at least two available openings to the surface from each seam or stratum of coal worked in such mine exclusive of the furnace upcast. But provided, that in any mine operated by a shaft or slope and ventilated by fan, if the air shaft shall be divided into two compartments, one of them may be used for an airway and the other for the purpose of egress and ingress from and into said mine by the persons therein employed, and the same shall be considered a compliance with the provisions of this section hereinbefore set forth. And there shall be cut out or around the side of every hoisting shaft, or driven through the solid strata at the bottom thereof, a traveling way not less than five feet high and three feet wide, to enable persons to pass the shaft in going from one side of it to the other without passing over or under the cage or other hoisting apparatus. The Mine Inspector may upon application, if he deem it necessary, grant a period of time not exceeding eighteen months in which the operator shall provide the second opening, under such terms as the Inspector shall prescribe, and the second opening required may be through an adjoining mine if the way thereto and the opening itself be kept and maintained in proper condition.

Section 209B of Article 1 and Section 164A of Article 12. The shaft or out-let, other than the main shaft or out-let, shall be separated from the main outlet and from the furnace shaft by a natural strata at all points by a distance of not less than one hundred and fifty feet (except in all mines opened prior to June 30th, 1901, where such distances may be less, if, in the judgment of the Inspector one hundred and fifty feet is impracticable). If the mine be worked by drift two openings, exclusive of the furnace upcast shaft, and not less than thirty feet apart shall be required. Where the two openings shall not have been provided as required hereinbefore by this Act, the Mine Inspector shall cause the second to be made without delay; and in no case shall furnace ventilation be used where there is only one opening into the mine.

PASSAGES REQUIRED.

Section 209C of Article 1 and Section 164B of Article 12. Unless the Mine Inspector shall deem it impracticable, all mines shall have at least two entries or other passage-ways, one of which shall lead from the main entrance and the other from the other opening into the body of the mine, and said two passageways shall be kept well drained and in a safe condition for persons to travel therein throughout their whole length, so as to obtain in case of emergency, a second way for egress from the workings. No part of said workings shall at any time be driven more than three hundred feet in advance of the aforesaid passageways, except entries, airways or other narrow work, but should an opening to the surface be provided from the interior of the mine, the passageways aforesaid may be made and maintained therefrom into the working part of the mine, and this shall be deemed sufficient compliance with the provisions of this Act relative thereto; said two passageways shall be separated by pillars of coal or other strata of sufficient strength and width.

Section 209D of Article 1 and Section 164C of Article 12. Where necessary to secure access to the two passageways required in any slope mine where the coal seam inclines and has workings on both sides of said slope, there shall be provided an overcast for the use of persons working therein, the dimensions of which shall not be less than four feet wide and five feet high. Said overcast shall connect the workings on both sides of said slope, and the intervening strata between the slope and overcast shall be of sufficient strength and thickness at all points for its purpose; provided, that if said overcast be substantially constructed it shall be deemed sufficient.

Section 209E of Article 1 and Section 164D of Article 12. The machinery used for lowering or raising the employes into and out of the mines and the stairs used for ingress and egress shall be kept in safe condition, and inspected once in each twenty-four hours by a competent person employed for the purpose; and such machinery and the method of its inspection shall be approved by the Mine Inspector.

Section 209F of Article 1 and Section 164E of Article 12. No greater number of persons shall be lowered or hoisted at any one time than may be permitted by the Mine Inspector, and notice of the number so allowed to be lowered or hoisted at any one time shall be kept posted up by the operator or superintendent in conspicuous places at the top and bottom of the shaft, and the aforesaid notice shall be signed by the Mine Inspector.

VENTILATION.

Section 209G of Article 1 and Section 164 F of Article 12. The operator or superintendent of every coal mine, whether shaft, slope or drift, shall provide and hereafter maintain ample means of ventilation for the circulation of air through the main entries, cross entries and all other working places to an extent that will dilute, carry off and render harmless all noxious or dangerous gases generated in the mine, affording not less than one hundred cubic feet per minute for each and every person employed therein; provided that in the case of old workings when the Mine Inspector shall deem it impracticable to secure 100 cubic feet or air per minute for each man, then he may reduce it to 80 feet per man per minute, for such old workings.

Section 209H of Article 1 and Section 164G of Article 12. It shall be the duty of the mine foreman to see that proper cut-throughs are made in all the rooms, and pillars, at such distance apart as the Mine Inspector may deem requisite, not more than thirty-five yards in any instance, for the purpose of ventilation, and the ventilation shall be conducted through said cut-throughs into the rooms by means of check doors made of canvas or other suitable material, placed on the entries or in other suitable places, and he shall not permit any room to be opened in advance of the ventilation current. Should the

Mine Inspector discover any room, entry, or other working places being driven in advance of the air current, or shall discover any crosscut or cut-through not properly closed or bratticed contrary to the requirements of this Section, he shall order the workingmen working in such places to cease work at once until the law is complied with.

Section 209I of Article 1 and Section 164H of Article 12. One year after the passage of this Act, every mine employing more than seventy-five persons must be divided into two or more districts, and each district shall be provided with a separate split of pure air and the ventilation shall be so arranged that not more than seventy-five persons shall be employed at the same time in any one current or split of air; provided that a larger number, not exceeding one hundred and thirty may be allowed by the Mine Inspector when in his judgment it is impracticable to comply with the foregoing requirements.

Section 209J of Article 1 and Section 164I of Article 12. In all mines the doors used in guiding and directing the ventilation of the mine shall be so hung and adjusted that they will close themselves, or be supplied with springs and pulleys, so that they cannot be left standing open, and an attendant shall be employed at all the principal doors through which cars are hauled, for the purpose of opening and closing said doors when trips of cars are passing to and from the workings, unless an approved self-acting door is used, which principal doors shall be determined by the Mine Inspector or mine foreman. A hole for shelter shall be provided at each door, so as to protect said attendant from being run over by the cars while attending to his duties, and persons employed for this purpose shall at all times remain at their post of duty during working hours; on every incline plane or road in any mine where hauling is done by machinery, and where a door is used, an extra door shall be provided, to be used in case of necessity.

Section 209K of Article 1 and Section 164 J of Article 12. The mine foreman shall measure the air current at least once a week and the Mine Inspector at each visit at the inlet and outlet and at or near the faces of the entries, and shall keep a record of such measurements. An anemometor shall be provided for this purpose by the operator of the mine to the foreman, and the same shall be supplied to the Mine Inspector by the State.

Section 209L of Article 1 and Section 164K of Article 12. All ventilating fans used at the mines shall be provided with recording instruments, by which the number of revolutions of the effective ventilating pressure of the fan shall be registered and the registration with its date for each and every day shall be kept in the office of the mine for future reference for one year from its date.

BORE HOLES.

Section 209M of Article 1 and Section 164L of Article 12. In any place that is being driven toward or in dangerous proximity to an abandoned mine or part of a mine suspected of or containing gases, or which may be inundated with water, bore holes shall be kept not less than twenty feet in advance of the face, and on the sides of such working places, said holes to be drilled diagonally not more than eight feet apart, and any place driven to tap water or gas shall not be more than ten feet wide, and no water or gas from an abandoned mine, or part of mine, and no bore holes from the surface shall be tapped until the employes, except those engaged at such work, are out of the mine, and such work to be done under the immediate instructions of the mine foreman.

GENERAL RULES.

Section 209N of Article 1 and Section 164M of Article 12. For any injury to person or property occasioned by any violation of this Act, or any failure to comply with its provisions by any owner, operator or superintendent of any coal mine or colliery, a right of action shall accrue to the party injured against said owner or operator for any direct damages he may have sustained thereby, and in case of loss of life by reason of such neglect or failure aforesaid a right of action shall accrue to the widow and lineal heirs of the person whose life shall be lost, for like recovery of damages for the injury they shall have sustained.

Sub-section A. If any person shall receive any injury in or about the mine, and the same shall come within the knowledge of the mine foreman, and if he shall be of the opinion that the injured person requires medical or surgical treatment, he shall see that said injured person receives the same. The mine foreman shall report monthly to the Mine Inspector on blanks furnished by said Inspector for that purpose all accidents resulting in personal injury.

Sub-section B. No unauthorized person shall enter the mine without permission from the superintendent or mine foreman.

Sub-section C. No person in a state of intoxication shall be allowed to go into or loiter about the mine.

Sub-section D. All employes shall inform the mine foreman, or his assistant of the unsafe condition of any working place, hauling roads or traveling ways, or of damages to doors, brattices or stoppings or of obstructions in the air passages when known to them.

Sub-section E. No person shall be allowed to travel on foot to or from his work on any incline plane, dilly or locomotive roads, when other good roads are provided for that purpose.

Sub-section F. It shall be the duty of operators or superintendents to keep at the mouth of the drift, shaft or slope, or at such other place about the mine as shall be designated by the Mine Inspector, a stretcher, properly constructed, and a woolen and a water-proof blanket in good condition for use in carrying away any person who may be injured at the mine. Provided, that when more than two hundred are employed, two stretchers and two woolen blankets and two water-proof blankets shall be kept.

Sub-section G. No person shall ride upon or against any loaded car or cage in any shaft or slope in or about any coal mine; no person other than the trip runner shall be permitted to ride on empty trips on any slope or incline plane, when the speed of the cars exceed six miles per hour. The transportation of tools in and out of the mine shall be under the direction of the mine foreman.

Sub-section H. No person under the age of twelve years or female of any age, shall be permitted to enter any mine to work therein; nor shall any boy under the age of fourteen years, unless he can read and write, be allowed to work in any mine; and the mine boss shall see that this requirement is fully met.

DUTIES OF EMPLOYES.

Section 209O of Article 1 and Section 164N of Article 12. He shall examine his working place before beginning work and see that it is made safe before commencing to dig or load coal.

Sub-section A. It shall be the duty of every miner to mine his coal properly, and after each blast he shall exercise great care in examining the roof and coal, and shall secure them safely before beginning work.

Sub-section B. When a driver has occasion to leave his trip he must be careful to see that it is left, when possible, in a safe place secure from cars and other danger, or from endangering drivers of trips following.

Sub-section C. The driver must take great care while taking his trips down grades to have the brakes or sprags so adjusted that he can keep the cars under control and prevent them running on to himself or others.

Sub-section D. He shall not leave any cars standing where they may materially obstruct the ventilation current, except in case of accident to the trip.

Sub-section E. No employe shall burn any oil in the mines, composed wholly or in part of petroleum or its products, but such oil must be at least seventy-five per cent. pure lard, provided, this Section shall not prevent the use of "Sunshine" as an illuminant.

Sub-section F. Any person or persons whomsoever, who shall intentionally or carelessly injure any shaft, instruments, air course or brattice, or obstruct or throw open air ways, or injure any part of the machinery or open any door in the mine and not close it again immediately, or open any door which opening is forbidden, or disobey any order given in carrying out the provisions of this Act, or do any other act whatsoever whereby the lives or health of persons or the security of the miners or the machinery is endangered, shall be deemed guilty of a misdemeanor, and may be punished in a manner provided for in this Act.

Section 209P of Article 1 and Section 164 O of Article 12. The neglect or refusal to perform the duties required to be performed by any Section of this Act by parties therein required to perform them, or the violation of any of the provisions or requirements hereof, shall be deemed a misdemeanor and shall, upon conviction thereof in the Circuit Court of the County wherein the misdemeanor was committed, or before a Justice of the Peace for such County, be punished by a fine not exceeding five hundred dollars, or imprisonment in the county jail for a period not exceeding six months, or both, in the discretion of the Justice of the Peace, or of the Court. (This Section as amended by Chapter 243, of the Acts of 1904.)

RULES OF INTERPRETATION.

Section 209Q of Article 1 and Section 164P of Article 12. In this Act the term "Coal mine" includes the shafts, slopes, adits, drifts or inclined planes, connected with excavations penetrating coal stratum or strata, which excavations are ventilated by one general system of mine railroads over which coal may be delivered to one or more common points outside the mine when such is operated by one operator.

Sub-section A. The term "excavations and workings" includes all the excavated parts of a mine, those abandoned as well as the places actually being worked, also all underground workings and shafts, tunnels and other ways and openings, all such shafts, slopes, tunnels and other openings in the course of being sunk or driven, together with all roads, appliances, machinery and material connected with the same below the surface.

Sub-section B. The term "shaft" means a vertical opening through the strata, and which is or may be used for the purpose of ventilation or drainage, or for hoisting men or material, or both, in connection with the mining of coal.

Sub-sectin C. The term "slope" means an incline way or opening used for the same purpose as a shaft.

Sub-section D. The term "operator" means any firm, corporation or individual operating any coal mine or part thereof.

Sub-section E. The term "Superintendent" means the person who shall have, on behalf of the operator, immediate supervision of one or more mines.

Sub-section F. The provisions of this Act shall not apply to any mine employing less than ten persons in any one period of twenty-four hours.

MINE INSPECTOR'S DUTIES EXTENDED TO FIRE-CLAY MINES.

Sub-section G. It shall be the duty of the Mine Inspector to make as to the Clay or Fire Clay Mines in Allegany or Garrett Counties, the examination and reports required as to coal mines under Section 197 of Article 1, and Section 151 of Article 12 of this Act, and to make recommendations to the Governor as to the legislation requisite to protect life and health in such clay mines.

2

ANNUAL REPORT

OF THE

Mine Inspector for Allegany and Garrett Counties Maryland

TO HIS EXCELLENCY

GOVERNOR EDWIN WARFIELD

For the Year 1905 /06

THOMAS MURPHY, INSPECTOR

1907
THE GEORGES CREEK PRESS PRINT
Lonaconing, Maryland

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Letter of Transmittal

TO HIS EXCELLENCY, EDWIN WARFIELD,
GOVERNOR OF MARYLAND

SIR: In compliance with the requirements of Chapter 124, of the Acts of the General Assembly of 1902, relating to Mines and Mining, I have the honor to submit herewith my second annual Report.

THOMAS MURPHY,
INSPECTOR.

Prefatory Note

The year 1905 has been fairly prosperous for the mining industry of this State, and there was a very considerable increase in the production of coal. In 1904 there was mined in the State, 4,277.196 tons, while in 1905 4,571,209 was the total output. Of this tonnage 4,344,267 tons was mined in Allegany county, 3,942,388 tons by pick, and 401,879 tons mined by machines; Garrett county mines produced 207,606 tons by pick, and 19,336 tons by machine mining, a total of 226,942 tons. This is an increase in Allegany county of 252,044 tons, and in Garrett county of 41,969 tons. The largest individual increase in Allegany county was by the Consolidation Coal Company, which exceeded two million tons, as shown elsewhere in this report. The largest single mine is this company's Mine No. 7, its production going over the million-ton mark. In this State's production of coal were engaged 4,579 miners, 342 drivers, 708 inside laborers and 601 outside employees, making a total employed in the coal industry of Maryland of 6,230 persons. The increased tonnage in Garrett county is largely due to new development, and the good work still goes on. Notices of the incorporation of new mining companies in this State are frequent, and it is encouraging to note that in most cases with ample capital and good prospects of success. If proper methods are applied to the development of these properties, they will be a source of profit to their owners and the communities in which they are established, and a means of great revenue to the State. The activity noted in my last report as existing in Garrett county is increasing, and ere many years the output of Garrett county will be many times what it is now. In another part of this report is a special article upon the "Coal Area in Maryland," that may be of some benefit to those desiring to invest. The accidents are included in another part of this report. In this connection I would say that while most of the accidents were unavoidable, in my judgment, yet there were a few that were the result of carelessness on the part of those hurt and killed. I again reiterate that Mine Foremen should not allow many of the reckless acts I have noted as being done, at times Sometimes they are afraid to offend somebody, or to establish a good reputation among their men, fail to see that the men take care of themselves. Generally, in mines thus managed, the highest percentage of accidents is found. On the other hand, Mine Foremen, trying to make a personal reputation for getting out cheap coal, disregard the danger to life and property. Such men need sharp admonition. I have in mind some Mine Foremen, at this moment, who are constantly using almost parental guardianship over the men under them, and while the men do not seem to show it, they have the profoundest respect for such officers.

In my last report I recommended an amendment to the law, requiring the Mine Foremen to visit each working place at least once in two days. I have nothing to add to that recommendation, except my regrets that it was not taken up by the Delegates from this county, and enacted into law by the last General Assembly. I also recommended in my last report, an amendment to the mining law, upon the question of the oil to be used for illuminating purposes in mines. This is a more serious question than the average person considers, with five hundred, six hundred, and in one case nearly one thousand lights burning in a mine, many consuming the cheapest oil to be bought, regardless of the menace of the poisonous smoke to the health, not only of the user, but of all other men employed where the smoke can befoul the atmosphere. The standard is set unnecessarily high in the present law, for oil compounded according to the formulas required in Ohio or West Virginia give off very little smoke, produce a good light, and yet are cheap to the miners, for a good grade of oil burns much more slowly than cheap oils, and actually costs less through that saving. The present standard is so high that it is disregarded in the main, and the only means of enforcement would lie in endless and costly litigation. Oil—such as it is—can be bought at grocers for twenty-five cents a gallon; an oil that produces more smoke, and that of most acrid and poisonous quality, than illumination. Yet, if most of the men were to buy the best oil, and but a few to persist in consuming the cheapest grade, the effect, because of the peculiar ventilation system necessary in mining, would be almost as deleterious upon the general health of the miners employed in that mine as if all used the poorest oil on the market. The health of the miners employed in constant proximity to this danger, is of more importance than the cost of the oils, or any other property consideration. We have long boasted of the high average intelligence of our Maryland miners, and I trust that no attempt to lower that standard will be made. In another part of this report I have considered the question of "shot-firing" in detail, and while this question is not at issue in all Maryland mines, it is of great importance in those mines where it is now an issue. Generally speaking, the mines of Maryland are in much better shape than in previous years, yet very much more can be done, and will be done, for the health and safety of the employees, and the care and saving of the valuable properties.

I beg to thank all those who have given me their help, and for the kindly consideration with which I am generally, treated; for the courtesies extended by the coal companies, in furnishing statistical matter for the information of the State

In my last report I referred to the matter of expenses; a contingent fund should be established for the proper conduct of this office. It is absolutely necessary to the administration of this office that some such provision be made. At present a special Act must be passed by the Legislature every two years, to pay for the printing of the annual report, which the law requires to be printed. Other expenses, likewise required by law, must also be paid by the same slow and cumbrous method, which often entails a delay of a couple of years in paying the regular expenses of the State; this certainly should be remedied.

Maryland's Mine Inspectors

Name	Tenure of Office
PETER CAIN	From 1st. Monday in May, 1874, to 1st. Monday in May, 1876.
OWEN RIORDAN,	1st. Monday in May, 1876, to 1st. Monday in May, 1878.
OWEN RIORDAN,	from 1st. Monday in May, 1878 to 1st. Monday in May, 1880.
THOMAS BROWN,	1st. Monday in May, 1880, to 1st. Monday in May, 1882.
THOMAS BROWN,	1st. Monday in May, 1882, to 1st. Monday in May, 1884.
DENNIS SHERIDAN	1st. Monday in May, 1884, to 1st. Monday in May, 1886.
DENNIS SHERIDAN	1st. Monday in May, 1886, to 1st. Monday in May, 1888. Mr. Sheridan died during the early part of his term.
CHAS. H. HAMILL,	appointed September 9, 1886, began his duties Sept. 16, 1886, and served the rest of his the term to May, 1888.
R. T. BROWNING	1st. Monday in May, 1888, to 1st. Monday in May, 1890.
R. T. BROWNING	1st. Monday in May, 1890, to 1st. Monday in May, 1892.
F. J. McMAHON,	1st. Monday in May, 1892, to 1st. Monday in May, 1894.
F. J. McMAHON,	1st. Monday in May, 1894, to 1st. Monday in May, 1896.
OTTO HOHING,	1st. Monday in May, 1896, to 1st. Monday in May, 1898.
ALEX. RANKIN,	1st. Monday in May, 1898, to 1st. Monday in May, 1900.
JAS. P. CARROLL,	1st. Monday in May, 1900, to 1st. Monday in May, 1902.
JAS. P. CARROLL,	1st. Monday in May, 1902, to 1st. Monday in May, 1904.
THOS. MURPHY,	1st. Monday in May, 1904, to 1st. Monday in May, 1906.

Mr. R. T. Browning is the only Inspector that has been appointed from Garrett county, all the others being from Allegany county.

Table of Inspections Made in 1905

Operator	Mine	No. Visits
Cumberland Basin Coal Company,	Stafford and McGlone	3
McMullen Bros. Coal Company	Barrellsville No. 1	6
Georges Creek Bald Knob Coal Company	Nos. 1 and 2.	1
Midland Mining Company	Trimble	6
Midland Mining Company	Enterprise	6
New York Mining Company	Union No. 2	6
Union Mining Company	Union	6
Union Mining Company	Union No. 1 just opened	1
Consolidation Coal Company	Ocean No. 1	22
Consolidation Coal Company	Ocean No. 2 Tyson	4
Consolidation Coal Company	Ocean No. 3 Hoffman	14
Consolidation Coal Company	Ocean No. 3½ Eckhart	6
Consolidation Coal Company	Ocean No. 7	25
Consolidation Coal Company	Ocean No. 8	8
Consolidation Coal Company	Ocean No. 9	6
H. and W. A. Hitchins Coal Company	Borden	6
Piedmont & Georges Creek Coal Company	Washington No. 1	6
Piedmont and Georges Creek Coal Co.,	Washington No. 2	6
Piedmont and Georges Creek Coal Co.,	Washington No. 3	6
Braddock Coal Company	Pine City	1
Wachovia Coal Company	Montell	2
Barton and Georges Creek Valley Coal Co.,	Carlos No. 2 & 3	6
Bowery Coal Company	Bowery	3
Georges Creek Coal & Iron Co.	No. 1 & Engineside	6
Georges Creek Coal & Iron Co.	No. 16 and 17 Tyson	4
Georges Creek Coal Iron Co.	No. 3 or Pine Hill	6
Georges Creek Coal & Iron Co.	No. 9 or Columbia	7
Georges Creek Coal & Iron Co.	No. 12	6
Georges Creek Coal & Iron Co.	No. 10 & Fire Coal, Dirty 9	3
New Central Coal Co.	Koontz, Big Vein and Tyson	6
New Central Coal Co.	Big Vein	2
Maryland Coal Co.	Appleton and Tyson	6
Maryland Coal Co.	Patton	6
American Coal Co.	Jackson Tyson and Waynesburg	6
American Coal Co.	Caledonia	6
Piedmont Mining Co.	Pekin	5
Piedmont Mining Co.	Moscow	6
Moscow-Georges Creek Mining Co.	Moscow Nos. 2 & 3	6

Table of Inspections, [Continued]

Operator	Mine	No. Visits
Chapman Coal Mining Co.	Swanton	6
Potomac Mining Co.	Potomac	6
Frostburg Coal Co.	Ginseng	6
Phoenix & Georges Creek Coal & Mining Co.	Phoenix and Eckhart	6
Cumberland & Georges Creek Coal Co.	Cumb'd & Geo. Cr'k	6
Piedmont-Cumberland Coal Co.	Hampshire	6
Davis Coal & Coke Co.	Buxton or No. 17	6
McCullough Fuel Coal Mine	No. 1	1
Hansel's Fuel Coal Mine	No 1	2

Total Inspections for Allegany County.......................282

Inspections in Garrett County

Operator	Mine	No. Visits
G. C. Pattison Coal Co.	Empire	6
Monroe Coal Mining Co.	Elk Run Nos. 1 and 3	6
Potomac Valley Coal Co. (Was the Davis-Harvey Company)	Davis	5
Blaine Mining Co.	Dill No. 2	7
Garrett County Coal and Mining Co.	Dodson No. 1	5
Upper Potomac Mining Co.	Big Seven	6
Stoyer Run Coal Co.	Stoyer Run Nos. 1 and 2	
Beechwood-Cumberland Coal Co.	No. 1	4
Nethkins Coal Company	Bayard Mine	4

Total for Garrett county.......................43

Total visits to coal mines during year.......................325

Inspections in the Fire Clay Mines

Operator	Mine	No. Visits
Union Mining Company	Fire Clay Mines	5
Big Savage Fire Clay Co.,	Fire Clay Mine	4
Savage Mountain Fire Brick Company	Fire Clay Mine	3

Total visits to Fire Clay Mines.......................12

Total visits of inspection during year.......................337

The Coal Area of Maryland

In my last report I stated that many of the coal companies were unable to furnish statistics as to the amount of coal worked out, and the amount yet to mine, but hoped to be able to furnish the information in this report. I regret to state that the figures received this year are but little more complete than last year's.

The largest operations in this State are in the Big Vein, the total original area of which was about 18,000 acres, much of which yet remains to be mined. With the present improved methods of mining this seam, there remains about as much coal yet to be marketed as has been mined during the existence of the region. This statement made by me in last report, seemed over-confident; but further investigation has convinced me more fully of its truth. At present recovery of the Big Vein is going on at many points in the region; at Phoenix, Georges Creek Coal and Mining Company; at Caledonia mine, of the American Coal Company; at both mines of the Piedmont Mining Company, at Moscow and Pekin; at one mine of the Moscow-Georges Creek Mining Company. The Maryland Coal Company is lifting the bottom coal now, which represents about one-third of the workable seam of the Big Vein, thousands upon thousands of tons of which lies buried in these hills. New Central Coal Company is recovering coal both at their Koontz and Big Vein mines. The Georges Creek Coal and Iron Company is lifting bottoms and going after Big Vein coal, long reputed worked out. The American Company is doing the same thing at their Jackson mines. The Midland Mining Company is working out good coal, supposed to have been taken out long years ago from the Consolidation Coal Company's old drift mines of Ocean No. 1. The H. & W. A. Hitchins Coal Company is recovering no end of coal at their Borden mine, formerly "worked out" by the Borden Mining Company; approximating probably a quarter-million tons. This company has also leased the "Old Shaft," in which it is said about as much coal remains as has been removed. The Bowery Coal Company at Midlothian, are working parts of the "Johnson" and "Blaen Avon" mines, and expect to get much coal from the old "Bowery" mine, of the Borden Mining Company. The Consolidation Coal Company has launched into the recovery business also, and here are some figures gotten from their engineering department, of coal actually measured and mapped, that has been recovered or is in process of recovery on the lands of this company:

Location	Tons
Ocean Mine No. 1 (Old Lye)	185,600
Hoffman drift mine (shipped so far, much more yet remaining)	36,000
Eckhart, No. 3½, in process of recovery	2,500,000
Total amount now located	2,721,600

Aside from this is old Allegany mine, where it is known that much coal can be secured; old Frost mines; New Hope—although some of this is included in the Eckhart figures—old Consolidation; and the Astor mine, at Vale Summit; and to my own personal knowledge, coal lying all the way from Astor mine down to the Midland Mining Company's lines, and adjoining Ocean mine No. 1, on the other side; all owned by the same company. Nor is this all, the Piedmont and Georges Creek Coal Company, the pioneers in the recovery movement on Georges Creek, are still in business at their Washington No. 1 mine, with prospects good for many years to come.

This is a brief summary of what is going on in this particular line, in Allegany county. Another feature of the recovery of coal is perhaps not considered greatly. About eighty-five per cent. of the value of coal lies in the labor; and in this character of work coal cannot be mined so cheaply as when solid. Falls have to be cleaned up, much more timber used, and sometimes great disadvantages in haulage overcome, as when the coal must be entered from a higher point, and worked "toward the dip." The money spent in recovering such coal is so much to the people of Maryland, that the miners, realizing it, often do "dead work" without pay, that they should not be expected to do.

The area and extent of the smaller veins is not yet very well defined. The "Tyson" seam, which lies directly above the Big Vein, is one of the best, outside of the Big Vein, if not the best. It is found in the "Monongahela" formation and is mined extensively throughout the region. At the lower end of the region it is from five to seven feet in thickness, and at the upper end from three to four feet, averaging about three and one-half feet. In the same formation is another coal, almost as good as the Tyson, although clay veins are more frequently encountered in working it; it is called the "Koontz" or "Waynesburg" coal, and at present is being mined at but one point in the region ; by the American Coal Company, at Jackson. These are the only seams now being operated above the Big Vein, and since the "Koontz" occurs only on the highest points, its area is but limited. A large area of the "Tyson" coal is yet untouched mainly owned by the Consolidation Coal Company. The Big Vein, which has already been discussed, is the lowest coal in the "Monongahela" formation. The next vein of any importance is the "Franklin," or "Dirty-Nine-foot," which is from 155 to 200 feet below the Big Vein, in the Conemaugh formation. This seam is not extensively mined as yet, being worked at but three points: Phoenix, Potomac and a fuel mine operated by the Georges Creek Coal and Iron Company. In this formation occurs also the "Bakerstown," or Barton Four-Foot" about 425 feet below the Big Vein which is mined more largely than any other seam below the Big Vein. It averages about thirty inches of clean coal, and is very uniform and persistent in character. At Potomac, where it is mined on a larger scale than anywhere else in this region, many of the miners state that they prefer the work to the Big Vein. There is a large area of this coal, which goes below Georges Creek at the lower end of Pekin, and does not show above level again until Morantown on the north-east, extending almost to the top of Dan's Mountain on the east and to Savage Mountain on the West. This coal extends over portions of Garrett county, and is being mined at Bloomington and at Barnum. I predict a great future for this coal, when it will be largely developed, and perhaps worked upon the "long wall" system. There are other seams in this formation, but it is my purpose to speak only of coal being operated. The "Thomas," or "Upper Freeport" coal lies about 675 feet below the Big Vein, at the top of the Allegany formation. Wherever worked in this State the "Thomas" coal is extremely hard, almost as refactory as anthracite, and difficult to work by pick mining. Machines are used in this coal by the Frostburg Mining Company, and properly used turn out a fine quality of coal. This coal makes a good quality of coke, and some day we may have large coking plants here, as this coal has a much larger area than the Bakertown, being about 255 feet below that coal. Next lower in the Allegany formation is the "Upper Kittanning" coal, in this State, so far defined only at one place—Dodson, in Garrett county, where it is operated by the Garrett Coal and Mining Company. Geologists say this coal is not present on Georges Creek, or if present is not of sufficient thickness to justify the belief that it will ever possess any commercial value. At Dodson this coal is four feet thick, clean, with a grain and structure very much like the Big Vein. The coal is free to work, with a good, smooth bottom and hard top, and the only trouble is that it shows some "rust," even when well under the hill. If this coal is generally present in our coal sections, it will probably prove the best of our lower, or smaller seams. It is about 765 feet below the Big Vein, and about 60 feet above the "Davis," or "Lower Kittanning." The "Davis Six-Foot," or "Lower Kittanning," is about 825 feet below the Big Vein, and is more generally worked in the State than any other smaller vein. In Allegany county it is generally under such heavy cover that as yet we have few operations working it. It passes beneath Georges Creek at a point near Franklin, and is not worked anywhere above that point. Below, there are two large mines —Washington No. 3, of the Piedmont-Georges Creek Coal Company, with a daily capacity of about 1,000 tons, and Buxton mine, of the Davis Coal & Coke Company, about the same size. In Garrett county this seam is largely developed, being reached everywhere in that county, up to the Deer Park "anticline" by drift. At or about Stoyer it goes under the Potomac, on the southern slope of this "anticline," and from there southward it must be reached by shaft. The area of this coal is more extensive than that of any other coal seams before mentioned, and it is also the thickest seam being mined, below the level of the Big Vein. It is a coal that can be mined economically wherever it is free from faults, but little timber being needed in advance work, and comparatively little in pillar work. Scarcely any brushing is needed, except where faults occur, and in development so far, it is not apparent that these will seriously interfere with economic mining. This vein lies in the "Allegany" formation, and is the best of the seams named in that section. Below the "Davis" coal, about fifty feet, is the "Parker," or "Clarion" seam, but at only two points is it being operated, in both places on a small scale; at Barrellsville, by the Cumberland Basin Coal Company, and at Westernport, by J. O. J. Greene. Thirty feet lower still lies the "Bluebaugh" or "Brookville," seam, which is yet little worked. Probably this coal has some future, because it is highest in quality, where it is being mined, and with the great area that is supposed to exist, the coal being 915 or 920 feet below the Big Vein, it must be some time before any great development can be expected. There are other coal seams in the Pottsville formation, still lower down, below the Allegany, and some of them are being mined on a very small scale, such as the "Mercer." or "Mt. Savage" coal, the "Westernport" and "Bloomington" coals. The "Mercer" coal is mined in connection with the mining of fire-clay near Mt. Savage.

Such is a brief outline of the coal resources of this State as discovered at present. It demonstrates, beyond the shadow of a doubt, that Marvland is good for a large fuel supply for hundreds of years, and that Western Maryland will be producing coal when some other States have exhausted all their workable seams. The lower veins here are as good as those in adjoining States, and if it were not for the indefensible 15 cent differential maintained against the Maryland mines by the Baltimore & Ohio, our mines would certainly be much more largely developed than at present. There might have been a time, when nothing but Big Vein was mined on Georges Creek, that the differential was in part justifiable, to develope the inferior coals of adjoining States; but now, in addition to our Big Vein, we have seven or eight other workable seams, that would be shipping many times the amount of coal they are shipping now, if it were not for this discrimination. It would seem, too, to be false economy for the railroads—for the stockholders, at least—for surely the railroad cannot haul a ton of coal as cheaply, or cheaper, from regions 150 miles further away from eastern ports. This region is the closest coal field to tide-water in the country, and should have the full benefit of its natural advantages.

"Shooting the Coal"

While the question of "shooting," or blasting the coal out in the mine, is not so serious a matter with us in Maryland as yet, as in some other States, none-the-less it is a question of importance to the health and perhaps the safety of the miners in many mines in Maryland.

Entering some mines for inspection, one will hear one blast after another, going off like an artillery duel. Often when the working face is reached will be found a small round hole, showing where a "shot" has failed to do its work, but has shattered it to pieces, so when the next shot, which is generally put in immediately, explodes, a mass of coal and slate is torn down, hopelessly intermixed. When loaded and sent to the dump, the result of the carelessness is apparent in a mass of refuse, lowering the quality of the output. This "hogging" the coal has a bad effect upon the skilled miners, who take pride in their work; we still have some of that class although the introduction of machines and growing use of blasting is reducing their number every year; when any man who can turn the crank of an auger and make a cartridge is a full-fledged miner, and can take the place of any miner, pride in the skill that could "cut a straight rib," or "mine four feet under a breast of coal" is a vain thing, and skilled mining is indeed becoming a thing of the past. So-called "miners" will blast as often as four times (I have seen it) with cartridges anywhere from one to three feet in length, to avoid a little work in shearing or mining their coal before putting in these awful, dangerous and wasteful charges—and get two or three tons of smashed-up coal. With such conditions, an inferior class of miners is likely to replace our old race of skilled handicraftsmen, men whose ignorance, carelessness and stupidity will work their own destruction. The evil of careless blasting harms health from the smoke emitted, ruins the coal product, and destroys the pride the Maryland miner used to take in his work. While it saves labor, temporarily, the miners must find some way to regulate its use, or in the end it will work their own confusion.

Weights and Weighing

During the fiscal year from May, 1905 to May, 1906, the weighing of coal has been given my most careful attention. The number of scales tested has increased, more testing having been done in Garrett than in the previous year. Of the scales tested I found but one incorrect this year, and that was at a small operation, the "Big Vein" mine, of the New Central Coal Company. In this case the company requested that I bring my weights and test the scales. It was found to be weighing against the miners 30 pounds in 500, and about 70 pounds in three tons. My weights were left at the company's desire, until the scales were properly adjusted. It is significant that of late nearly all requests to test scales have come from operators. This seems to indicate a desire upon their part to keep their scales in proper condition, and also to see that they do not suffer any injustice from inaccurate weighing, and incorrect scales. Automatic, or self-registering scales, of the Fairbanks make, have been installed at Hoffman and Ocean Mine No. 1, by the Consolidation Coal Company during the past year. This scale greatly simplifies the work of the weighmaster, and if properly adjusted must weigh correctly.

The miners at Upper Potomac, Garrett county, employed by the Upper Potomac Coal Company at the Big Vein mine, decided to place a check-weighman at the scales to look after their interests. Unfortunately, the man selected had been discharged a few days before that, from the employment of the same company. The mine foreman objected to his presence on the company's premises, and I was notified. I went at once to the place, found the conditions as above stated, got the men together and had an expression of their will, and found they were almost a unit for placing this man upon the scales. I then notified the company that under the law they could not interfere in the selection of the checkweighman, and must permit the man selected by the miners to act in that capacity. This they promised to do, and the man went to work, but was forced to quit in a short time, because he could not get pay enough to justify him in staying.

It is manifestly just that miners should have a representative at the scales to see that the product of their labor is properly weighed, so there could be no shadow of doubt that they are paid for their full labor.

I again suggest that it would be well for each company to keep a couple of test weights at their scales; this would save much time and cost to the State, and entail very little upon the operators.

Accidents During the Year

There were 72 accidents in the fiscal year, from May 1, 1905, to May 1, 1906, an increase of 18 as compared with the corresponding period of the year preceding. 13 of these were fatal, a decrease of three; and 59 non-fatal, an increase of 21. Of the non-fatal accidents, 31 were serious and 28 slight in character. There were no accidents in the fire-clay mines during the year. Of the fatal accidents 5 were from falls of roof coal, in the Big Vein; one from shale, or slate, in the "Davis Six-foot," one from a fall of sand-rock in the same coal, one from being caught by loaded trip against a pile of ties, one from being dragged by a mule, and four from falls of breast coal. Of the latter four, two falls were but small pieces of coal, such as in most instances would result in but slight injuries; the other two were large falls of coal. Of the seven deaths from falls of roof-coal five were in the big vein; about three of these were the result of carelessness in timbering. The one from sand rock was from the same cause, and the other can only be attributed to an accident. There is entirely too much reckless work going on in this region. The greatest risks are constantly being taken by men of a high order of native intelligence, and I can trace it only to thoughtlessness or laziness. Mine foremen are to blame for much of this, for they should insist upon the miners timbering their work properly. Some foremen do this, and their men are experts; others are unwilling to enforce a proper discipline, and let their men run needless risks. It is not always certain that an old, experienced miner will be prudent; in fact, I have known them to take greater chances than the less experienced miner would. It is notable that in the worst cut-up mines, the most dangerous places, accidents are almost unknown. Accidents hardly ever occur in the Midland Mining Company's Enterprise mine, at Washington No. 1, of the Piedmont & Georges Creek Coal Company, at the Borden Mine, at Koontz mine, at Caledonia mine, and many others of unusual danger. But in the "safe" mines, where all is apparently secure, men are continually being hurt.

Inspecting a certain mine in Allegany county, I went into a room upon a certain heading, and found the men shoveling slate back into the "gob," working under what I thought a dangerous piece of top-coal. I called the attention of the men to the fact, telling them they were taking great risks by working under such a heavy mass of top-coal. They said it "was some dangerous," but as soon as they got the slate out of the way they would take it down. I suggested that they set a prop under the edge of the hanging coal, which they promised to do; and I left them. About four o'clock that afternoon, when I left the fan, going to catch the train for home, I saw a crowd of men around a car coming out of the mine, and in the car, seriously hurt, one of the men whose place I had visited, hurt by the same piece of top-coal I had warned them about. It was the old story. They had waited to finish a car.

As a general proposition, miners can now get all the props they want, for the companies realize, from an economic standpoint, (aside from humanitarian considerations) the importance of propping to get all the coal possible. Mine foremen and their assistants should have the courage to go after the men who will not care for their own lives, or the lives of their co-laborers, and insist upon their timbering their places properly; and if for any local cause timber cannot be promptly furnished, send them home. Better that a man should lose an occasional day's work, than lose his life. The dragging to death of a boy, by a runaway mule, repeated an accident of last year. Now what always should have been done is being done: the harness is being stripped from the mules if they have any distance to go to the stables.

As soon as an accident has occurred, it has been my policy to notify the Coroner; but in no case this year has it been necessary to hold an inquest. Two of the fatal accidents occurring were in Garrett county, both of such nature that they are not likely to occur very frequently. All these accidents appear in the proper tables in this report.

I again call the attention of miners to reckless handling of blasting powder. A couple of serious accidents were caused by careless handling of powder. Miners will make cartridges with their naked lamp-flame in their hands, without consideration even whether the air-current blows toward the can or not.

Mine foremen should comply with the law requiring them to report to the Inspector at the end of each month, the accidents for the month. This is very little trouble, and would be a great help to the Mine Inspector in preparing his report. I would also ask that they make an effort to answer all the questions asked. Most other States and the British Inspectors collect statistics similar, in some cases going farther, inquiring even the nationality and religion of the persons hurt.

Table of Fatal Accidents, 1905-6

DATE	NAME	OCCUP'T'N	AGE	MARRIED OR SINGLE	NO. IN FAMILY	RESIDENCE	CAUSE OF ACCIDENT	MINE	NAME OF COMPANY
1905 May 12	Geo. W. Poland	Miner	43	Married	Wife	Gilmore	Fall of roof coal	Ocean No. 8	Consolidation Coal Co.
May 15	John Donahue	Miner	22	Single		Hoffman	Fall of roof coal	Hoffman	Consolidation Coal Co.
July 6	Alex Wilson, Sr.	Miner	55	Married	7	Lonaconing	Fall of breast coal	Ocean No. 1	Consolidation Coal Co.
July 14	Steve Noggie	Miner	23	Single		Dill, W. Va.	Fall of breast coal	Dill No. 2	Blaine Mining Company
July 19	Ham Ross	Miner	39	Married	4	Barton	Fall of roof coal	Moscow	Piedmont Mining Co.
Oct. 3	Alex Wilson, Jr.	Miner	27	Married	3	Lonaconing	Fall of roof coal	Columbia	Geo. Creek C. & I. Co.
Dec. 13	Bert Nines	Miner	32	Married	Wife	Bl'ne, W. Va.	Fall of top rock	Dill No. 2	Blaine Mining Company
1906 Jan. 4	Chris. Roberts, Sr Died Jan. 4	Miner	60	Married	3	Frostburg	Fall of roof coal	Ocean No. 7	Consolidation Coal Co.
Jan. 26	Jas. Hotchkiss	Miner	51	Married	7	Lord	Fall of breast coal	Ocean No. 7	Consolidation Coal Co.
Mar. 8	Bailey Maury	Laborer	60	Married		Frostburg	Caught by loaded trip	Ocean No. 7	Consolidation Coal Co.
Mar. 1	Thos. Richardson	Miner	55	Married	7	Lonaconing	Struck by small piece breast coal	Jackson	American Coal Comp'y
Apr. 20	William Munsie	Driver	16	Single		Midland	Dragged by mule	Ocean No. 1	Consolidation Coal Co.
Apr. 26	Thos. Green	Miner	25	Married	4	Lonaconing	Fall of sand rock	Wash. No. 3	P'd'mt-G. C. Coal Co.

Fatal Accidents, 1905-6, Detailed

1, May 12.—George W. Poland, miner, employed at Ocean No. 8, by the Consolidation Coal Company, aged 43, residing at Gilmore, Allegany county, was instantly killed by a fall of roof-coal. Poland was working with another man on the lower side of a cross-cut, taking coal off a corner, whence coal had already been taken to allow room for a "turn" to be laid, to remove the pillar, or stump, above them. This "stump" had been removed, and in their work the men encountered a long slip in the roof, dropping probably ten or twelve tons over a space of twenty feet. Poland was working at the lower end of the place, his partner at the upper end, and it is miraculous that both were not killed. There were cross-bars across the road-way, but propped only on one side, the side on which they were working being set into the coal. This I consider a case of gross carelessness, which the setting of a few props would have prevented.

2. May 15.—John Donahue, aged 22, single, residing at Hoffman, with his widowed mother, was instantly killed at Hoffman mine (Consolidation Coal Company) by a fall of roof coal. This was a very distressing accident. The young man and his companions had just finished their day's work, and had completed taking out a stump. Before leaving for home young Donahue went in to examine the place; some said to pull out some rails that were going to be buried by the expected fall; others, that he went in simply to see the condition of the place. When I arrived the place had fallen, and while the slip whence the men said the roof fell, could be seen, the circumstances previous to the accident could not be discerned. Not knowing who had been negligent, I notified the Coroner, who came at once and investigated, deciding as a result that no inquest was necessary, for if there had been any negligence it was on the part of the men working in the place.

3. July 6.—Alexander Wilson, miner, 55 years old, residing at Lonaconing, was instantly killed by a fall of roof coal, in Ocean mine No. 1, of the Consolidation Coal Company. This was one of the most experienced miners in the region, but it would seem that he took a risk in undercutting the coal that no miner should assume. With his brother, he was driving a room and had broken through on the right side of his place into an old heading, driven years before, called the "6th. right water ditch." The roof had a very good smooth, at the top of the breast coal, which is frequently the case although not always. He was working on the

left side of the place, mining the breast, working wide to allow room for their track to go across the old "water-ditch." Thus the only support for the coal he was working at, was being cut away, and when he struck a small face slip, not apparently dangerous, about one and a half tons of coal fell, killing Wilson outright.

4 July 14.—Steve Noggie, a miner, working in Dill No. 2, mine of the Blaine Mining Company, Garrett county, was instantly killed by a fall of breast coal. This mine is in the "Davis six-foot" seam, and the company requires the miners to undercut their coal. From the position of things when I arrived it would seem that Noggie was lying on his side, with his head resting on a shovel turned down, engaged in backing up a "gib" or stump to support the breast until undercut, when a piece of the breast coal, weighing perhaps a hundred pounds, dropped a foot or fourteen inches, killing him outright.

5. July 19—Ham Ross, a miner, 39 years old, married, with three children, was instantly killed in the Piedmont Mining Company's Moscow mine, by a fall of roof coal. From all appearances this accident could have been prevented by the exercise of ordinary care. They were driving toward the waste, or where the coal had previously been mined, and had lifted the bottoms to lay their track, to bring the car closer, for the purpose of making handy loading. I could not see where any prop had been set from the rock, or pavement, but on the contrary all the props around the face were on top of the bottoms. A large face slip crossed directly over the place, which any miner should have seen, and probably they did see it, but they had a partly loaded car, and took the risk to finish it before making the place secure.

6. Oct. 3—Alexander Wilson, Jr., was killed by a fall of roof coal in Columbia mine, of the Georges Creek Coal & Iron Company. He was 27 years old and had a wife and two children, residing at Lonaconing. Four men worked together in the place and the accident happened early in the morning, just as some of his comrades were coming in. He was working at the face of a place being driven out to the outcrop, and was trimming the top of the breast, or "skutching" as it is locally called, when he freed the deadly face slip that so often appears in our roof coal, letting down about one and a half tons. He died shortly after getting him out. The place was reasonably well timbered, about as they are generally kept, and the accident seemed unavoidable.

7. Dec. 13 —Bert Nines, a miner, working in Dill No 2. mine, of the Blaine Mining Company, aged 32, with a wife and no children, residing at Blaine, W. Va., was killed outright by a piece of shale or rock, falling from the roof and striking him on the head, fracturing his skull. This is the second fatal accident at this mine during the year and, it is worthy of note, that you could hardly see how either man was killed, after examining the places, wherein they received their death. It appears as if

Nines was also mining when this small pot of roof slate fell, its thickest part was not more than four inches and it tapered down to a half inch. It seemed to have turned when falling, the heaviest portion going down first, striking him on the head and fracturing his skull as before stated.

1906

8. Jan. 4—Christopher Roberts, Sr., was fatally hurt at Ocean No: 7, of the Consolidation Coal Company, and died 11 days later. He was 60 years of age, married, and had a large grown up family, residing in Frostburg. Four men were working in the place pillaring. They had driven the cross-cut through and had started up the inside of the stump to take the inner cut out first. Roberts Sr., was working at the face, trimming the top of the breast, when he freed a face slip. His son, Roberts, Jr., was working alongside of the car, cutting up the bottom, preparatory to putting up a prop under one of the cross-bars, (two of the cross-bars having no props under one end) that would probably. have prevented the accident. A large amount of roof coal fell, breaking the cross-bars off at the left-side props, fatally crushing Roberts, Sr., and seriously injuring Roberts, Jr.
9. Jan. 26—James Hotchkiss was instantly killed by a fall of breast coal at Ocean No. 7, Consolidation Coal Company. He was 51 years old, married and had a large family; resided at Woodland. He and his two sons were working on the lower side of the heading, in a place that looked as safe as anywhere in any coal mine could be. The sons had each of the sides cut or sheared in past a face slip, that was very free and running directly across the place. Some of this slip had been worked off, for I noticed pick marks upon it; the rest fell when probably they were undercutting striking the father and killing him outright.
10. March 8.—Decilas Maury was injured at Ocean No. 7, Consolidation Coal Company, being caught by a loaded trip, in a close place, against a pile of ties, and rolled by two or three of the cars before freed. He died two days later. On account of his age it was stated by the doctors that he died from the shock produced by the injury. Maury was 60 years of age, married, and resided at Frostburg.
11. Feb. 19—Thomas Richardson died in Lonaconing. He was injured by a small piece of breast coal, slipping off the rib, where he was sitting at his dinner bucket; it struck him on the back, breaking it. At first, it was thought that he was only slightly hurt, but paralysis set in, in the lower part of his body, and he gradually wasted from the time of his injury, Oct. 3, 1905, until his death, Feb. 19, 1906. This was one of the most surprising accidents of the year, from the small amount of coal that fell. Richardson was 55 years old, married, with a family, living in Lonaconing.
12. April 21—William Munsie, a driver in Ocean No. 8, Consolidation Coal Company met a most horrible death at Ocean No. 1 stables.

Law Enforcement

There were several cases against coal companies, alleging varis infractions of the mining laws, pending at the time of my st report. These cases came up for trial at the October term Circuit Court, along with some others, indictments that were ought by the Grand Jury of that term. The first case was ainst the Superintendent of the Cumberland Georges Creek al Company, for failure to put in the necessary ventilating apratus, or failure to comply with Sec. 209 G, of Article 1, which quires the "operator or superintendent to provide and mainin ample means of ventilation, affording not less than 100 cubfeet of air per man per minute," etc. This not being obeyed that mine, action was brought in January, 1905; on the prome to "fix things up" the State's Attorney postponed the case til the April term. In the meantime two other cases were ought before Justices of the Peace, one against W. J. Bernard, perintendent of the Chapman Coal Company, for failure to supy the necessary ventilation under Section 209 G of Article 1, e other against William Dodds, foreman of the Maryland Coal mpany, for failure to have cut-throughs driven, required under ction 209 H of Article 1, of the mining law. These cases re all overlooked at the April term, 1905, and it was October fore Court again convened; consequently the cases went over that time. At that term of court four other indictments were ought by the Grand Jury, one against William Dodds, foreman the Maryland Coal Company, for failure to have the cut-roughs driven, one against the Midland Mining Company, one ainst the H. and W. A. Hitchins Coal Company, and one ainst the Piedmont & Georges Creek Coal Company, for faile to furnish proper ventilation. These cases were brought ainst my judgment; for although the laws were not strictly bserved at these mines, yet I believed the companies were oing everything in their power to obey the law, under great difficulies. I referred to this question in my last report. In some mines, working coal already partly removed, it is almost impossible to fully comply with the law. The cases came up for trial on Oct. 31, 1905, and the attorneys for the coal companies filed a demurrer to the indictments, arguing that none of the indictments were specific enough: did not state at what particular point in the mines these alleged violations of law occured; and the court promptly threw the cases out. It was purely technical ground, the merits of the case itself being entirely ignored. I could have furnished time, place, or any other information desired, and this goes to show that criminal prosecution upon the part of the State needs some amending, so that when such a mistake should occur, the Court would have the power to permit the amending of the indictment, rather than allow law-breakers to escape on purely technical grounds.

Descriptions of the Mines

McMULLEN BROTHERS

MINE No. 1, BARRELSVILLE

D. F. McMullen, General Manager
James Barrett, Superintendent H. W. Curran, Foreman

During the year 1905 McMullen Bros., Coal Company, worked reasonably steady. This coal locally known as the "Bluebaugh" ard said by geologists to be the equivalent of the "Brookville" seam in Pennsylvania, is of very good quality here the only place at present where it is being operated in this State. As I have said in my previous report one of the greatest drawbacks in mining all of the lower coals or "small vein coal" as they are called, is in keeping them properly cleaned. This subject is dealt with in a special article in another portion of this report. The second opening required by the Mining Law has been made here during the year, and an air shaft has lately been sunk which makes the ventilation as good as natural ventilation can be made under the circumstances. The improvements made during the year 1905, consist of one new opening, new tramway of 1450 feet long and extended their plane 800 feet. In addition to this the roads and drainage in the mine have been very much improved. They ship over the Cumberland & Pennsylvania railroad and are nearest to the port of Baltimore of any of the mines in the county.

CUMBERLAND BASIN COAL COMPANY

STAFFORD AND McGLONE

This company has been practically idle all year, shipping but 195 tons during that time. I visited the mine twice during the year and found but few men working. The ventilation was very good considering that it is by natural means. They have openings in the "Parker" or "Clarion" seam, and the "Bluebaugh" or "Brookville." The "Parker" being a drift and the "Bluebaugh" a slope. A locamotive operates over a branch road from off the Cumberland & Pennsylvania railroad and hauls the coal to the main line of the above mentioned road. A large number of comfortable houses have been built here, and it is to be regretted that the company do not operate their mines more steadily which would be a source of profit to themselves and the community.

GEORGES CREEK BALD KNOB COAL COMPANY

Jerry Wiland, Superintendent and Mine Foreman.

At this mine during the past year I have made but two visits, due to mine not working, though their output has increased during the year 2,993 tons. In my last report this operation was described at some length. A locomotive conveys the output to the head of the plane where it is lowered to the dump, and from there hauled to the Cumberland and Pennsylvania railroad by another locomotive, operating on the Wellersburg branch of this road. The ventilation is by furnace and on the occasion of my visits was very good.

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake at mouth of mine	4,940	20	247
Return to Furnace	5,170		

MIDLAND MINING COMPANY

TRIMBLE MINE

W. A. Somerville, General Superintendent Job Stevens, Foreman

This operation is at the extreme eastern outcrop of the "Big Vein" and is located at Morantown, on the line of the Cumberland and Pennsylvania railroad. During the year some improvement has been noted in the ventilation, and the general character of the coal has also improved. Roads and drainage in fair condition. The following readings indicate the condition.

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake at mouth of mine	3,990	12	332
Return to air shaft	4,120		

ENTERPRISE MINE

John Askey, Foreman

About one half mile east of Midland this mine is located, it ships over the Cumberland and Pennsylvania railroad, by a short branch road leading up along Hoffman, to the mine. It is working out abandoned coal belonging to the Consolidation Coal Company, and during the last year has reached coal owned by themselves, which was formerly owned by the McCullough heirs, of Frostburg. This operation will last for many years to come and is considered a very desirable place in which to work. The ventilation is by natural means and what is gotten from Ocean No. 1, ventilation system. The lower workings of this company are in close proximity to Ocean No. 1, "Old lye" and there being a great many leaks in this old work helps to furnish this mine with air. Roads and drainages in only fair condition.

NEW YORK MINING COMPANY

UNION NO. 2

Henry Shriver, Superintendent
John Sullivan, Foreman John Hannon, Sub-Foreman

This operation is located on the east side of the Cumberland and Pennsylvania railroad, just above the valley of Jennings Run, and is among the large operations of the region, pressing Ocean No. 1, of the Consolidation Coal Company, for second place in point of shipments. The coal here and its peculiar formation has been described at some length in my report for 1904. There is one matter worthy of note in speaking of this mine and that is, that during the year 1905 while working a portion of the mine, it was found impossible to keep the rooms from falling in, there being only from 4 to 6 feet of cover. It was then the company conceived the idea of taking the cover, or "stripping it" as that kind of work is generally called. About one and a quarter acres was mined in this way. The coal thus taken out proved to be as good as any coal in their mine, and it was indeed a unique sight to see this high seam, (for it was fully nine feet at this point) being uncovered and loaded into the mine cars and dumped as any other coal in this operation. The haulage system described at some length in my last report is working very satisfactorily, and the output of the mine is constantly increasing, notwithstanding that much of the work is still advancing and consequently harder to keep up the output. The ventilation at this mine is generally all that could be desired, as a persual of an average inspection of the mine will show. The matter of "fast shooting" or shooting coal out of the solid is a serious question here. I have known miners to put in as much as four blasts for one car of coal; cartridges ranging from 10 inches to 2 feet being used; I would find much more air at the inside "cut-through" than is required under the law, and I would also see plenty of smoke. This subject of "fast shooting" is dealt with in another portion of this report, under a special article. Here there is more docking done than at any other plant in the State, and more men employed by far than at any other mine, to try to keep the coal free from the impurities, due to the character of the coal in part, and sometimes due to carelessness in the mining of their coal on the part of the miner. Oftentimes a little prudence and care in preparing their coal would result in less docks to the miners and much cleaner coal for the company. The roads and drainage here are in good shape considering the difficulties to be overcome in the amount of refuse having to be gobbed or taken outside. An average inspection for the year is as follows:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the Fan "right side"	16 430	45	365
Outlet of second right "right side"	3,900	6	650
Intake to 3rd right "right side"	2,460	22	112
Intake to 4th and 5th right "right side"	5,040	14	360
Intake to 7th right "right side"	3,210	12	267
Intake to 9th right and 9th right slant "right side	21,800	70	311
Intake to 10th right "right side"	2,560	11	233
Intake from Fan "left side"	86,400	207	417
Inside cut-through in Jenkins "left side"	26,840	50	537
Inside cut-through in Carlow heading "left side"	7,560	35	216
Intake to 3rd left "left side"	3,490	24	145
Intake to 4th left "left side"	7,440	14	531
Intake to 5th left "left side"	4,120	45	92
Intake to 6th left "left side"	4,720	6	783
Intake to 7th left "left side"	5,390	6	898
Intake to 8th left "left side"	4,140	27	153

This inspection still shows 5th left to be the poorest ventilated of any of the headings in this mine, it being as stated in my last report a spur extending much farther than the company had any idea it would go.

TYSON NO. 1

John Sullivan, Foreman

This mine is located directly above Union No. 2, and is at the farthest northeastern point where this vein exists in this State. As yet but few men are working in it, and it has not come under the strict provision of the mining law. It is intended to have a large development of the "Tyson" here and it is hoped they will succeed in opening up a large tract of this valuable coal. Ventilation is by natural means, but as soon as the operation warrants, ventilation will be installed.

UNION MINING COMPANY

UNION MINE

Henry Shriver, Superintendent James Aldon, Foreman

During the year just ended Union No. 1, has been one of the best places in this region from every point of view. The ventilation has been good, work reasonably steady, and conditions generally, all that could be expected. This mine is located near where the New Hope mine of the Consolidation Coal Company, at the bottom of the "Y" known as Borden, was, and ships its product over the Cumberland and Pennsylvania railroad.

The following is an average inspection during the year.

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the Fan	29,840	140	213
Heading taken outside 1st right	19,600		
Intake to 1st cross, 1st right	1,400	5	280
Outlet of first right	5,635	42	134
Outlet from all places on plane	3,340	15	223
Outlet of straight heading	10,640	30	355
Intake to No. 1 slant and air course	19,240	38	243

"OLD WITHERS MINE," OR UNION NO. 1

This is a large tract of Georges Creek "Big Vein" that has been worked but very little. I have made one visit and found nothing but a few laborers making preparations to get the property thoroughly cleaned up. It is said to be a tract of about 700 acres and with the modern equipment the Union Mining Company is going to put in there, it will shortly become one of the large producing mines of the region. They will in all probability ship over the Cumberland and Pennsylvania railroad, being located along that line on the west side of Jennings Run.

PIEDMONT & GEORGES CREEK COAL COMPANY

WASHINGTON NO. 1

John S. Brophy, General Superintendent
Martin Condry, Superintendent P. H. Brown, Foreman

The operation known as Washington No. 1, is located at "Washington Hollow" a small village between Eckhart and Hoffman, and is working the famous Georges Creek "Big Vein" and shipping over the Eckhart branch of the Cumberland and Pennsylvania railroad. This mine was in bad shape as to ventilation during the early part of the summer of 1905. It had been previously ventilated by Eckhart fan, acting as an exhaust and Hoffman Fan blowing, the result that the "black damp" or "carbonic acid gas" was kept out enough so men could work. When the Consolidation Coal Company began the cleaning of Eckhart mine, preparatory to shipping coal, turned Eckhart fan blowing, and the result was that Washington No. 1, being between those two fans and being one of the outlets for them, received the benefit of the "black damp" accumulating in those old works. The management with characteristic enterprise went to work and installed a fan of their own, not knowing for a certainty whether it would do any good, but it has enabled the company to work most of this mine with generally fair conditions as to ventilation. In my last report is an extended account of the character of coal being mined at Washington No. 1.

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from Fan No. 2 opening.............	13,770	40	344
Outlet near the mouth No. 2 opening.......	8,280		

In Openings Nos. 1 and 3 the ventilation is by natural means, and is always good.

WASHINGTON NO. 2

Philip Brown Superintendent William Brown Foreman

Washington No. 2, is what was the "Old Etna mine" and is located at Eckhart, and ships its coal on the Eckhart branch of the Cumberland and Pennsylvania railroad. The "Big Vein" is about worked out here, and most of the product of this operation is taken from the "Tyson" or "Sewickly" seam. The "Tyson" or upper seam is ventilated by a blowing fan of the Robinson make. The ventilation is always good here. Considerable trouble is had here with water, but the new opening and tramroad, beside improving the haulage will also serve to drain much of the present work in the "Tyson." The following is an average inspection during the year.

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the Fan	34,960	83	421
Intake to 5th and 6th south 1st left	4,125	6	687
Inside cut in 13th south 1st left	720	2	360
Intake to 14th south 1st left	7,350	7	1,050
Intake to 15th south 1st left	2,900	2	1,450
Intake to 16th south 1st left	3,040	2	1,520
Intake to 17th south 1st left	3,780	3	1,260
Outlet of 18th and 19th south 1st left	4,200	4	1,050
Inside cut from 1st to 2nd lefts, 10th north	6,400	8	800
Inside cut from 8th to 7th north	1,820	9	202
Outlet of 5th north intake to 3rd north	4,050	16	253
Outlet of 1st north	3,600	6	600
Outlet of 2nd right and upper mine	3,150	8	374
Outlet at the mouth of old opening Tyson	20,160		

WASHINGTON NO. 3

M. P. Fahey, Superintendent John Fahey, Foreman

Washington No. 3, was described at some length in my last report and it is hardly necessary to go over the same thing this year. I referred to having noticed some "conbustible gas" in one or two headings in this mine, but I am pleased to state that it seems to have been in this case nothing but small pots. However too much vigilence cannot be exercised as a dangerous condition may arise without a moments warning. Extensive improvements have been made here during the year, consisting of new doors, one dump, of the Phillips make, a new weigh-house and scales, and extension of their railroad siding. The output of this operation has been materially increased during the year, from 82,680 tons in 1904 to 108,619 tons in 1905. It will in all likelihood surpass that in the future as much of their work is still advancing. The haulage is still done by mules, but it will slowly become an economic necessity to put in some kind of mechanical haulage, because of the constantly increasing distance between the workings and the dump. The ventilation has always been in excess of the amount required by law, but there being so much "fast shooting" or blasting coal without preparing it, that there is often a considerable amount of smoke. They ship over the Cumberland and Pennsylvania railroad and are working the "Lower Kittanning" or "Davis" six foot. The following is an average inspection during the year.

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the fan	34,080	169	202
Inside cut in 1st right	2,750	20	137
Inside cut in 1½ right	7,800	18	433
Inside cut in 2nd right	3,600	10	360
Outlet of 3rd right	2,420	8	302
Outlet of 5th right	3,210	12	269
Outlet of 6th right and Main heading	2,160	7	308
Outlet of 8th left	1,200	11	109
Outlet of 6th left	2,100	4	525
Outlet of 5th left	5,510	53	98
Outlet of 3rd left	3,200	5	640
Outlet at the mouth of Old Mine	10,560		
Outlet at the mouth of New Opening	12,270		

H. & W. A. HITCHINS COAL COMPANY

BORDEN MINE

John Malloy, Superitendent and Foreman.

Borden Mine of the H. & W. A. Hitchins Coal Company is located at Borden, on the main line of the Cumberland and Pennsylvania railroad and ships its product over that prosperous road. Much advance work through old workings has been done here during the past year, and it is with commendable grit that this concern continues to push this work at such a great expense for the present; of course later on they will in all probability get returns for the outlay now going on. The coal of this character now being mined is spoken of elsewhere in this report. There are at present about 70 men employed in and around this mine, and 20 of those are inside laborers, exclusive of the drivers, who number 6, and 9 outside laborers, making as many day hands as miners, therefore the reason for present cost is easily explained. The ventilation here is by natural means, and at certain times in the year it is not as good as it should be; though it has been materially improved during the year just ended. An inside haulage road is being driven from the opening above the head of the plane; when completed will be of great advantage to the company. It will do away with a long outside tramroad and also serve as a drainage for their No. 2 mine. It is being driven on a certain course regardless of old falls or any other obstruction.

CONSOLIDATION COAL COMPANY

OCEAN NO. 1

J. C. Brydon, General Superintendent.

A. E. Reppert, Assistant Superintendent. Hugh G. Smith, Foreman.

Ocean No 1, in point of output is the second largest mine in the State. It is a slope on the east bank of Georges Creek and ships over the Cumberland and Pennsylvania railroad. The mine is in the famous "Georges Creek Big Vein" and the coal taken from it is said to be highest in quality of that great coal. In the Q X Section of the mine a squeeze that had been giving some concern for about two years, culminated in the partial loss of a large portion of that part of the mine. Where about 200 men had been employed there is now about 30. The cause may be justly attributed to the most careless and indifferent methods heretofore obtaining under this company, showing total disregard of cover in the thickness of the pillars, and the manner in which they were cut. Much of the supposed worked out territory of this mine may yet be recovered, and though it will be more expensive to go after the second time, the value of the coal is what makes it possible to spend the large sums necessary in its recovery. The throwing of a large number of men into other parts of the mine on account of the squeeze mentioned above, had a tendency to confuse matters greatly, because miners here had never been accustomed to be "doubled up" or working more than two in a place; also many headings were started into solid coal in the straight slope and "across the sea" some of them being wet and very undesirable generally, and as a consequence the lot of mine foremen and under bosses was no "grand sweet song." In the new work pillars are being left in from 80 to 100 feet in thickness and that was additional reason why places were sometimes scarce. Now the mine is beginning to resume its normal output and the pillar work is all in fairly good shape. It is safe to assume that with the present method of working and caring for coal that Ocean Mine No. 1, has a much longer lease of life. The haulage here has been and is still a cause of considerable friction, distances from the rope or slope are constantly on the increase, and with motors and drivers having to cover more ground, it follows as night follows day that the cost of haulage will be greater, for who will say that it does not cost more money to haul coal from a heading with rooms 100 feet apart, than from a heading that the rooms are no greater distance than 50 feet, and in many rooms also driven off a parallel heading, 40 or 50 feet away; which should have been the air course and left solid. The ventilation at this mine has been as a rule good during the year. In the advance or heading work at times, considerable carelessness has been manifest in the matter of keeping up brattices, and while I am aware that in a large operation of this character, and much of the coal partially worked out between the ventilation fan and the present workings, making it hard to carry the air to the required points in sufficient volume, yet when cut-throughs are made, the previous cut-through should at once be bratticed, it must eventually be done, and why delay, as the expense never lessens, but sometimes increases. This fan is one of the two largest fans in the region, being 25 feet in diameter and throws a large volume of air at a very high pressure into the mine, and while there are some brick and cement brattices on the main airway, yet many of the brattices are made of wood and made air-tight with clay, which soon drys out as the fan is a blower, and soon the brattices are leaking and it only takes a little leak on every brattice to make itself felt in the ventilation at the faces. Early in the present year the small fan and fan house that was supposed to ventilate the "old lie" burned down, but it was in bad shape and the loss has not been materially noticed in the ventilation. A matter worthy of note here is the big improvement made in the manway running parallel with the slope. A broad walk has been laid throughout the greater part of it, particularly in the worst places. This manway has ever been a source of annoyance and in places was totally unfit for men to travel. The taking down of some low timbers and retimbering higher, has made it much safer. There is at present more machine coal being mined here than for sometime.

The following is an average inspection during the year:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from fan	132,800	458	290
Intake to new lie	3,240	15	216
Intake to straight heading, old lie	3.360	20	168
Intake to straight sump	2,527	18	140
Intake to all Q. X	10,840	28	387
Intake to 2nd left	2,320	12	193
Intake to all straight slope	17,280		
Outlet of 7th right, straight slope	3,420	26	132
Outlet of 8th right, straight slope	7,695	45	171
Outlet of 9th right, straight slope	3,440	25	138
Intake to main heading, and 11th and 10th rights, straight slope	3,465	22	157
Intake to straight heading in dip	10,115	19	533
Outlet in Hawkins heading in dip	7,880	15	525
Intake to Wet heading in dip	5,040	7	720
Intake to Welches slant, across the sea	3,520	21	168
Intake to Miller heading, across the sea	4,600	27	170
Intake to Carney's heading, across the sea	5,320	28	190
Intake to 8th right, across the sea	6,000	21	286
Intake to 9th right, across the sea	5,250	15	305
No reading in 10th or 11th right, across the sea		23	
Intake to lower end of Loar's heading, across the sea	7,240	21	345

OCEAN NO. 2

W. H. Walbert, Foreman.

Ocean No. 2 is located at the "Old Consolidation" and is worked exclusively for local trade for Frostburg and vicinity. It is in the "Tyson" or "Sewickly" seam, and is of very good quality. The average height of this coal is about 3½ feet; ventilation is by natural means and is generally good, but few men being employed here, the employees burn either "sunshine" or a good quality of oil. There is no scale here, the miners loading by the car.

OCEAN NO. 3, OR HOFFMAN

Joseph B. Thomas, Foreman.

Ocean No. 3 or Hoffman is the lowest, or nearest the Georges Creek basin of any in the region and as a result, it is the most difficult problem in drainage of any in the field; but it is hoped that ere this report is printed the drainage question will be in part solved by the completion of the tunnel or "water ditch" being driven from Clarysville to the bottom of Hoffman slope, a distance of eleven thousand, three hundred feet. This water way when completed will dispense with the pumping shaft which is maintained almost exclusively for the pumping of the water that accumulates in this mine. The ventilation here is generally very good, though as stated in my last report some of the work is about three miles from the fan. There is more "shift" or night and day work here than in any mine in the region because of the scarcity of places, and the desire of the company to keep all their men employed until such time as they will be able to have this property in such shape that they can work all the men on day turn. Much of this work was in a rather dangerous condition because of the fact, that the output was kept up at the expense of the property. This is the longest slope of any coal mine in the country, being nearly one and one half miles in length. A very dangerous practice is indiscriminately followed by officials and employees, that is of riding up and down this long slope. Very little attention is paid to the manway on this slope for that reason. It is true it is a long distance to walk, but it is infinitely better to walk than to take the risk of losing their lives by riding either up or down this slope. The new mine, as it is called, is opened just back of the engine room, that hauls the coal up from the bottom of the slope, and is in the old workings of former days, and in the crop coal. The prospects are good for some time to come here, as they are constantly recovering coal that was thought to be lost, or unfit for shipment. About 60 men work in this mine, and conditions are always good as to ventilation. The following readings were taken at a recent visit.

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake at the mouth "New Mine".........	12,482	62	201
Outlets at two air-holes, "New Mine,"....	15,750		

This is an average inspection of the "slope" during the year :

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the fan	53,270	179	298
Intake to 2nd cross, northside	16,720	18	929
Intake to 3rd cross, northside	11,520	18	640
Intake to 2nd cross, straight	8,280	42	197
Intake to Tippings, headings	4,410	32	138
Intake to Scivies, headine	3,450	12	287
Intake to 2nd cross, Klondyke heading	2,360	9	262
Intake to 3rd cross, Klondyke heading	2,240	6	373
Intake to 4th cross, Klondyke heading	2,530	12	211

Outlets are too numerous to reach, as this mine is connected with Ocean No. 1, Ocean No. 3½, and the Pumping Shaft, and the old workings of many others which serve as outlets.

OCEAN NO. 3½, OR ECKHART

James Weston, Foreman.

This operation was temporarily abandoned because of water and the greater portion of it worked out, or was supposed to be worked out. During the past year from forty to fifty men have been working here, ditching, cleaning old falls and retimbering, until there is a large amount of coal recovered and will be shipping coal long before this report is published. Much of this abandoned coal has been recovered by ditches leading to the Allegany water ditch, but much more is still under water. This will be released when the water way or tunnel to the bottom of Hoffman slope is completed. A branch tunnel or "water ditch" has been driven from the main tunnel in Hoffman, a portion of the distance to Eckhart, but had to be abandoned for the present because the pumps at the pumping station could not handle the ever increasing amount of water this branch tunnel made. This branch water-way is unique in this region: it is being driven on a certain course regardless of obstructions, much of the distance being through supposed worked out territory; when dead falls are met, the surrounding strata are kept back by heavy timber and lagging, making a splendid water ditch. It is double timbered and lagged on sides and top all the way.

The ventilation of this tunnel is also novel; it is furnished by a small fan located at the mouth of the tunnel, which drives the air into a sheet iron pipe, 10 inches in diameter and returns out the tunnel. Large quantities of "black damp" or "carbonic acid gas" is released from the decayed matter in the old work, traversed by this tunnel, and it is necessary to keep the ventilation close to the face, in order to enable the men to work. Eckhart mine is ventilated by a blowing fan, 20 feet in diameter, and so far the ventilation has been very good. They will ship over the Eckhart branch of the Cumberland and Pennsylvania railroad, and will give a new lease of life to that thriving mining town.

OCEAN NO. 7 OR "KLONDYKE"

Jonathan Jenkins, Foreman.

During the year just ended this mine has surpassed all previous records in output, without any more advance development than before. In 1904, 821,940 tons was the output and in 1905 the output amounted to 1,024,859 tons making a net gain of 202,919 tons. The labor of managing and directing the machinery necessary to the putting of this amount of coal on the railroad cars is a stupendous task for the management of this operation. It is true that there are six sub-foremen or section bosses, but the complex duties devolving on the men in charge are very numerous. The ventilation here is generally all that could be desired, of course excepting machine-driven places where the "dust" from the "puncher" and smoke from the blasting of the coal, makes it often disagreeable, no matter how much air may be circulating in the heading where machines are used. If 100 feet per man per minute is needed where there is no machine work done, (and I think that much necessary to keep a heading in healthful condition) then 300 feet is needed where machines are used or blasting is done to any great extent. This operation employs about 835 miners, 48 drivers, 133 inside laborers and 94 outside laborers, making a total employed in and about the mine of 1,110. There is a branch road from the Carlos branch of the Cumberland and Pennsylvania railroad that leads to the mines and upon which the coal is shipped. The new mine has been generally in good condition during the past year. The manway in the slope has not been in as good condition as it should have been for sometime and I trust that before this is printed that it will be walkable, in places it is very bad and the great risks that some reckless miners take in walking the slopes or haulage-roads is frequently justified in their opinion by the condition of the manway. I know that one experiment after another has been tried in order to determine which would be the best method of keeping a dry road, such as breaking stone small and cleaning out everything down to the pavement, but without success. A narrow boardwalk is in my opinion the only remedy that can be kept up for the men and the expense of this is infinitesimal compared to the great comfort the employees will derive by having a dry road to walk to and from their work. This has been started and it is hoped it will be completed without delay. The output here is around 4,000 tons per day and is the largest in the region and perhaps in the country.

The following is an average inspection during the year:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the large fan, arch mine....	160,460	600	267
Intake to 2nd right, 1st cross, New Slope	3,360	20	168
Intake to 2nd left, 1st cross, new slope ..	3,664	31	118
Intake to 2nd left 3rd cross, new slope....	2,640	20	132
Intake to 3rd right, 1st cross new slope..	2,850	28	102
Intake to 3rd right straight, new slope....	3,850	15	257
Intake to 3rd left, 1st cross, new slope....	2,660	34	78
Outlet of 3rd left, 3rd cross, new slope....	3,670	26	141
Intake to 4th right, 1st cross, new slope..	3,920	45	87
Outlet of 4th right straight, new slope....	2.300	4	560
Intake to 4th left, 1st cross, new slope....	4,560	45	101
Intake to 4th left, straight, new slope....	4,820	33	146
Intake to 5th right, 1st cross, new slope..	1.300	5	260
Outlet of 5th right straight, new slope....	2,000	8	250
Intake to 5th left straight, new slope......	1,500	4	375
Intake to 2nd right, 1st cross, middle slope	6,500	50	130
Intake to 3rd right, 1st cross, " "	3,715	40	93
Intake to 3rd right straight, " "	5,000	17	294
Intake to 4th right, 1st cross, " "	5,800	40	145
Intake to 4th right, 2nd cross, " "	1,280	4	320
Intake to 4th right straight, " "	3,100	4	775
Intake to 2nd right, 1st cross, old slope..	4,440	19	234
Intake to 3rd right 1st cross, " "	5,250	19	276
Intake ta 4th right, 1st cross, " "	7,600	36	211
Intake from the small fan, new mine.....	60,480	160	378
Intake to straight heading, new mine.....	10,050	40	251
Intake to 1st right. new mine............	5,309	32	166
Intake to right and left top of plane new mine.............................	2,430	13	184
Intake to back scuttle, new mine..........	2,240	14	160
Outlet of 1st left, 1st cross, new slope....	11,100	50	222
Inside cut in Main heading "Tyson"......	4,620	16	288

OCEAN No. 8

Charles Leatham, Foreman.

This mine is located at Midland on the west bank of Georges Creek, and is in the big vein bearing that name. It is close to the outlet of the "water ditch" that drains Ocean No. 7, and parts of Ocean No. 1, and also serves as a drainage for No. 8. The ventilation during the past year has not been up to the standard. This mine being ventilated by the fan at Ocean No. 1, Q. X. in No. 1 is territory adjacent to No. 8, and the ventilation for No. 8, had to first pass over this territory. When the squeeze was going on in No. 1, it obstructed air courses, smashed down brattices and generally demoralized the condition in that section. Early in the year the 16 foot fan at Ocean No. 1 was destroyed by fire; some time after the fan and fan house was rebuilt at Ocean No. 8, for the purpose of ventilating this mine.

On account of being unable to get water here to run their engine, and of some hitch with the water company, the fan was not put in operation until early in the present year. Since that time the ventilation has been all right. This is an inspection since the fan was put in operation:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the fan	34,505	86	401
Intake to 1st left	6,060	40	151
Intake to 2nd left	6,780	36	188
Outlet near the mouth	18,360		

OCEAN NO, 8, TYSON.

Charles Leatham, Foreman.

Almost directly above No. 8 big vein, No. 8 "Tyson" has been opened. This seam is from 90 to 110 feet above the "big vein" and is coal of a very high quality. At this point as yet it has not assumed its normal height, being from 34 to 36 inches, while generally at this end of the region it ranges about 3½ feet. A large area of this coal is there, 300 acres or more, and its development is a cause of satisfaction to all the people of this locality. A fan and fan house is in progress of erection at this time, and before this is printed will be driving plenty of fresh air to the miners working in Tyson No. 8.

A very steep incline plane lowers the mine cars to the dump where the coal is dumped on the same siding as No. 8 "big vein" uses.

PUMPING SHAFT TYSON

The lower "Tyson" or Sewickly seam is being worked from the pumping shaft; it is used exclusively for boiler use at the pumping station. About five or 6 miners work here and conditions are generally good. While the coal here is good in quality it does not show the thickness of the "upper Tyson." Ventilation is from the pumping shaft, being one of the returns of Hoffman fan.

OCEAN NO. 9, TYSON

Joseph Radcliff, Foreman.

Ocean No. 9, is in the "Tyson" seam about 100 feet above the "big vein" and is a coal that has a great future, in the upper end of the region. There are three openings here, and coal is being shipped from two of them; the other being used to coal the locomotives on the Cumberland and Pennsylvania railroad. "C" opening, or No. 3, has been in a very serious fault for some time, but at present it has three and one half feet of very good coal. Ventilation is by an exhaust fan and is at all times very good. This inspection shows the condition of the ventilation.

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Inside cut in 1st left C opening	4,200	10	420
Inside cut in 1st right B opening	5,040	14	360
Inside cut in Main heading, B opening	6,000	14	428
Inside cut in Main heading, A opening	8,970	19	472
Return to the fan	10,260		

General condition of roads good, drainage not so good.

BARTON & GEORGES CREEK VALLEY COAL COMPANY

CARLOS MINE

A. E. Hitchins, Superintendent.

H. C. Hitchins and Robert Duncan, Foremen.

The mines of this company are located at Carlos, a mining town at the terminus of the Carlos branch of the Cumberland and Pennsylvania railroad, over which they ship. This company is always endeavoring to go farther than the expressed letter of the law and to make conditions in their mines healthful and safe. The system employed here in pillaring the "big vein" is being generally adopted by other companies throughout the region, for I can safely assert without fear of successful contradiction that more coal per acre, has been marketed from these operations than from most other mines in the region working the "big vein." The slope is where most of the work is being done at present. During the past year an additional powerhouse and engine room has been built, the power used being electricity. Two Centrifugal pumps, and one plunger pump have been put in the mine to pump the water, which has been giving the management a considerable amount of trouble. This power house and pumps are more minutely described in a separate article. The Hill mine is being rapidly worked out. Ventilation in this mine has been none of the best, it being but natural ventilation and at certain seasons of the year was greatly bothered with "black damp," though everything consistent with the character of the mine was being done to relieve the case.

During the year work has been resumed in what is called the "old mine" or No. 1 opening, this is ventilated by means of holes made to the surface, and is generally good.

An inspection of the slope follows:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the fan	34,066	143	238
Intake to 10 or upper heading	4,920	30	164
Intake to Conrads heading	6,790	50	136
Intake to 2nd right	12,920	28	461
Outlet of 1st right	3,430	15	229
Outlet at the mouth of slope	17,405		

General conditions of roads and drainage good.

HANSEL COAL COMPANY

The Hansel mine is in the "big vein" and is being worked exclusively for fire coal. This coal is adjoining the old Frost mine and is of very good quality. About five men are generally employed and conditions are good.

M'CULLOUGH RALLINGS COAL COMPANY.

Martin Hartig, Foreman.

This mine has been recently opened and is supplying a large part of the domestic fuel for Frostburg and vicinity. It is also in the "big vein" and situated close to the outcropping of the "old Consolidation" and "Blen Avon" mines; 6 or 7 men have been working here and on my visit I found conditions good.

JOHN CLISE, FIRE COAL MINE

This mine is worked for domestic fuel and is in coal owned by the Georges Creek Coal and Iron Company, formerly worked by Hitchins Bros., of Frostburg. It is located at Miller Mines and is also in the "big vein." Midland gets a large part of its domestic coal from this place, though it is all crop coal, but generally of fair quality. Two to four men are usually employed here.

GEORGES CREEK COAL AND IRON COMPANY.

No. 1 or Engineside

R. L. Somerville, General Superintendent.
John F. Somerville, Assistant Superintendent. R. T. Spear, Foreman.

"Engineside" and No. 1 are located about three-fourths of a mile from Lonaconing on the west bank of Georges Creek. No. 1 is about worked out, but "Engineside" will work for many years to come. The haulage system used here is a double tail rope system, with stationary engine. Engine outside the mine. The engine is supplied with steam by a 150 horse power boiler. The ventilation here is as a rule very good and at no time during the year, on the occasion of my visits have I seen cause for complaint. The following is an average inspection during the year:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake at the mouth	29,680	114	260
Intake to Cutter heading	5,040	23	219
Intake to 2nd right	2,180	17	128
Intake to Fleming heading	3,620	22	165
Intake to Peebles heading	2,430	22	110
Intake tu Upper heading	2,440	17	144
Return to Fan	32,420		

No. 16 and 17 Tyson

Douglas Somerville, Foreman.

This operation has contended with a serious fault for some time, but it is believed they are now through it. The mine has hardly at any time the required number of men to bring it under the provisions of the mining law. This mine was described at some length in my last report.

On this current all of the men work.

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Return to Furnace	2,520	12	210

Pine Hill or No. 3

John Boyd, Foreman.

The general condition of Pine Hill is at all times good. It is true that it is not very extensive any more, but if it were not watched carefully it would soon be apparent in its condition. The ventilation is by natural means and is always good. About 35 men are employed here, some of whom work at night turn. This shows the condition of the mine as to ventilation.

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake at the mouth	12,160	22	553
Outlet at air shaft	11,220		

General condition of roads and drainage good.

Mine No 12

John Boyd, Foreman.

This operation is in a piece of coal on the hill adjoining "Pine Hill" and is shipping over the Georges Creek and Cumberland Railroad. Early in the past year the ventilation was not what it should have been here and when a sudden demand for coal made it necessary to employ more men, raising the number from 6 to 35 or 40, the ventilation was found bad, there being no outlet. The management went to work and after a time an air hole was driven out the left side bettering the case, though not enough. Now they have air holes out both sides and the ventilation is good.

Roads and drainage in good condition.

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake at the mouth....................	20,800	48	433

No. 9 or Columbia

John Boyd, Foreman.

This mine is located at Gilmore, and ships over the Georges Creek and Cumberland Railroad. It is always in a safe and healthful condition, due to the same care and diligence exercised at "Pine Hill." The ventilation is by natural means and at all times in the year is good. There is one thing that operates to the advantage of these mines that assists the natural ventilation greatly. There is a great difference in temperature between the mine mouth and the back workings: once they get an air hole out, the air works at all seasons of the year, when the temperature out is colder than that in, the air ascends to the air hole, when warmer in than out, the air turns and flows out the mine mouth, thus securing good ventilation. This reading indicates the conditions as generally found by me:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake at the mouth....................	11,240	21	535

General condition of roads and drainage good.

Mine No. 10

John Boyd, Foreman.

This operation was starting around the same hill that Columbia is, but on the other side. It advanced to a point where it was no longer feasible to proceed, and are now drawing all the good coal out and coming back. There is only 3 men and 1 driver here, and they ship over the same dump as Columbia. Conditions good.

FRANKLIN, OR DIRTY NINE FOOT MINE

The "Franklin" or "dirty nine foot" coal as it is locally named is being developed by this company just back of the Somerville residence, within the corporate limits of the town of Lonaconing. At present it is being mined solely for domestic use, but if it continues to improve as they get under heavier cover and it is expected and hoped that it will, we may see a large development of this coal in the near future around Lonaconing. Large areas of this seam can be reached by drift here, and we trust that this pioneer movement may result in bringing to the attention of Lonaconing another of its inexhaustable resources in coal. But three or four men are working now, but the general satisfaction this coal is giving as a domestic fuel will require the employment of many more men.

COROMANDEL COAL COMPANY.

BIG VEIN MINE

William Thompson, Foreman.

The "big vein" mine of the Coromandel Coal Company is situated on the East branch of the Georges Creek and Cumberland railroad and ships over that line. In the fall of 1905 this operation resumed work after a lapse of some years in idleness. It is believed that quite a large amount of coal will be gotten out of this mine, as the methods being pursued in going after abandoned coal, have been revolutionized in the last few years, but few men can be worked here, because the work must necessarily be confined to narrow limits. The "Tyson" seam is also being opened here and it is thought that quite a large amount of this valuable coal will be found. The ventilation is generally rather poor.

NEW CENTRAL COAL COMPANY

KOONTZ MINE (BIG VEIN)

Duncan Sinclair, General Superintendent.
William Thompson, Foreman.

During the past year Koontz mine has been in better shape as to ventilation and general safety than it had been during my term of office. The ventilation is furnished by a twenty foot fan and in general is good. This mine it is true is working some of the coal that was thought to be lost when companies working in this region did not appreciate the economic value of good ventilation. For that reason air courses cannot be maintained as they could if the work was in solid coal. The thick covering over the coal at this point, and the fact that they are surrounded by old work, the Consolidation on the one side, and Georges Creek Coal and Iron Company on the other, makes the work of keeping back the "black damp" here no small matter. The haulage is by "tail rope" and stationary engine, located outside on the main heading, gathering being done by horses and mules on the inside. They ship on the Georges Creek and Cumberland Railroad, having a short line from the west branch of this road up to their mine. Drainage is generally good; roads in fairly good condition.

This is an average reading of the fan at "big vein."

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the Fan	49,240	52	947
Outlet at the mouth	51,620		

The miners do not get all the air this reading shows, because of the cut up character of the work, but they get enough to keep the mine in a good healthful condition.

TYSON MINE OR KOONTZ NO. 2

Duncan Sinclair, General Superintendent.

William Thompson, Foreman.

At this company's "Tyson" mine is probably the best seam in the upper end of the region in this coal. It averages three and a half feet, sometimes reaching over 4 feet. Generally this mine is in very good condition as to ventilation and safety, but at times I have noticed some carelessness in allowing air courses to partially fall in. This is in part due to the fact that it is affected by the falls from the big vein, where pillaring is being done. The haulage here is also by stationary engine and "tail rope," gathering being done by small mules on the inside.

The following is an average inspection during the year:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the fan, Tyson	16,250	24	673
Outlet of straight heading	3,420	3	1,140
Outlet of 1st right heading,	2,975	6	406
Outlet of 2nd right heading	1,860	6	310
No reading up straight		4	
Outlet near the mouth	15,540		

Condition of roads and drainage very good.

BRADDOCK COAL COMPANY.

PINE CITY MINE

F. C. Harwood, Superintendent. Joseph Cutter, Foreman.

This operation has been idle since June 1905. I made but one visit there and conditions were none of the best then. Here is the rope-and-bucket conveyor that was described at some length in my last report.

WACHOVIA COAL COMPANY.

Charles E. Davis, Superintendent and Foreman.

This mine is in the "Montell Tunnel" driven years ago and ships over the Cumberland and Georges Creek Railroad. It is generally in fair condition. They are now driving a heading through the mountain, and when they have that done they will be able to mine their coal more economically, and provide a much better means of ventilation. At most visits to this mine I found less than ten men working. The seam worked is the lower Kittanning or "Davis Six Foot."

MARYLAND COAL COMPANY.

APPLETON MINE

Frank E. Brackett, Superintendent. William Dodds, Foreman.

Appleton mine of the Maryland Coal Company is located to the west of Lonaconing and ships on the west branch of the Georges Creek and

Cumberland railroad. It is one of a group of large mines this company have had in this same hill. I have quite a lengthy description of this operation in my first report. The haulage is all by gravity, an inside plane lowering the cars, that are gathered from right and left headings by horses, to the mouth of the mine, from whence they are conveyed by a locomotive on a tramway to the dump. The ventilation is by an exhaust fan which furnishes plenty of air. A partial observance of the cut-through law was had here during the past year. This is an average inspection of the mine for the year.

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Combined Intakes of Manway and Haulage	48,400	120	403
Intake to 2nd right	2,160	6	360
Intake to 3rd right	4,620	27	171
Intake to 3rd left	3,220	24	134
Intake to 2nd left	4,050	34	119
Outlet of 1st left	1,450	9	161
Return to Fan	59,572		

General condition of roads and drainage good.

TYSON NO. 1

William Dodds, Foreman.

The "Tyson" has been opened and will no doubt be rapidly developed here. So far it proves to be one of the best mines in this region that is attacking this seam. The coal is of good quality and ranging from 3½ to 4 feet in height. There are three openings made, one for haulage, another for manway and another for intake from the fan, the latter intersects the manway, a couple of hundred feet from the intake. The ventilation is by force or blowing fan of the Capell make and is doing good work. This seam being so close to the surface much trouble is experienced in the wet seasons from water. The mine is opened directly above the dump or old "Kingsland" opening. A very steep gravity plane is the means of lowering the cars to the dump. They seem to be going at this operation in a very practical and business-like way, and it means much to the town of Lonaconing and the community in general how they succeed in their undertaking. The penetration and mining of this seam is no new experience in this region. It has been amply demonstrated that it can be worked profitably and successfully at many points and there is no reason why that should not be done here.

PATTON MINE

August Ricker, Foreman.

The Patton mine of the Maryland Coal Company is located about one mile west of Lonaconing and ships on the Georges Creek and Cumberland railroad. The mine at present employes about 40 miners, and they are working in very narrow limits. The ventilation is at all times good, the fan being kept running very slowly. The haulage is by tail rope and stationary engine, with horses to do the gathering. At no mine in the region is there more general satisfaction than here. The following is the average air readings taken:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the fan	28,500	40	712
Outlet at the mouth	19,950		

General condition of roads and drainage good.

AMERICAN COAL COMPANY.

JACKSON MINES

Isaac Bradburn, Sr., Superintendent.
John Peel, Sr., Foreman Robert Gunning, Foreman.

This company operates quite a large number of mines in the "big vein." They have extended their tramroad around to Nos. 16 and 17, upon the hillside, above "Coney hollow." They are located on the eastern side of the hill from Lonaconing, running east and west from the dump. No 5. is the most important of these openings, where a stationary engine is located and the haulage is done by that power. This mine will last for some time yet, due to the care with which they have recently begun to mine their coal. In addition to these workings are 1, 14½, 15, 16, and 17, all working "big vein" and saving large amounts of coal that was formerly given up as lost. The haulage here is done by horses in the mines, and by a locomotive on the tramway, making a very economical method of conveyance to the dump. Ventilation is always good at these mines. At the stationary or No. 5, is a model mine repair shop, a description of which appeared in my last report.

This is the condition of the ventilation during the year at No 5; all the other places being ventilated by holes made to the surface.

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from fan	28,320	30	944
Outlet at the mouth	29,600		

General condition of roads and drainage good.

TYSON MINE

John Peel, Sr., Foreman.

The "Tyson" at this place has improved materially in character of coal. It was for a time thought that this mine would prove unprofitable, but it has been looking more encouraging all the time. The ventilation here has for the past year been very poor, depending altogether on natural means to ventilate a seam as small as this and when openings are so close together, and about on the same level. This operation is reached by a back switch from the main tramroad.

WAYNESBURG OR KOONTZ, NOS. 1 AND 2

Robert Gunning, Foreman.

This mine is now drawing pillars and conditions are generally very good. It is true that they have to depend on natural ventilation here, but they have an air hole through the mountain that at all times insures a measure of ventilation. During the year another opening in this "Koontz" or "Waynesburg" seam has been made with a very good quality of coal. This is the only place in the State where this coal is being mined as yet. It occurs in the "Dunkard" formation, which is the highest containing coal measures.

This is the condition of the ventilation at these mines.

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake at the mouth of No. 1	10,800	18	600
Outlet at the air-shaft	11,200		

CALEDONIA MINE

David Williamson, Mine Foreman.

This operation is located at Barton and ships over the Cumberland and Pennsylvania Railroad. It is working "Big Vein" and "Tyson;" six openings are in the "Big Vein" and four in the "Tyson." Of the "Big Vein" they are working over a large territory and though it was said to be done some years ago, yet it will be some years to come before all of the "big vein" at Caledonia is worked out. The "Tyson" comprises splendid openings and with the best "Tyson" in the region—height ranging from five to seven feet and conditions generally good, it has become one of the most desirable places in the region in which to work. It is worthy of note here that at these mines when they were working some crop coal that they were the first in the region to make air holes in order to come near to conforming with the law. I do not mean air holes as they are generally made, one for a mine, but running a place out every 150 to 200 feet. This, where mechanical ventilation would not pay is the next best thing, and it keeps working places in a good healthful condition at a very slight cost to the company. It is intended to greatly increase their output by developing some of the lower seams of coal having a large area of them, and in good shape for developing.

The following is the average readings taken in "Tyson" mine during the year:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake to No. 2 mine, Tyson	8,640	40	216
Intake to No. 1 mine, Tyson	7,260		
Intake at mouth of No. 3 mine, Tyson	4,200	20	210
Return to air shaft, No. 3 mine, Tyson	3,620		
Intake to opening, left side No. 4 mine	6,716	16	407
Outlet at opening, right side, No. 4 mine	5,430		

General condition of roads and drainage good.

I must congratulate the miners of these operations, especially in the "Big Vein" for the careful and efficient manner in which they do their timbering.

MOSCOW AND GEORGES CREEK COAL COMPANY.

Moscow Nos. 2 and 3

W. A. Somerville, General Superintendent.
William Askey, Foreman.

Moscow Nos. 2 and 3 are located between Moscow and Barton and ship on the Cumberland and Pennsylvania railroad. No. 2 is in the "Big Vein" and like others who are going after this famous coal that was abandoned, are reaching it by a series of openings at a place where they are able to penetrate the hill and reach some of the old stumps and pillars that indifferent mining left there. They are getting some coal here and expect to get a great deal more. It is reached by two long incline planes, and tramroads right and left from the head of the upper plane. Ventilation is at most times good here, as a hole can be made to the surface at a very small cost. No. 3 on the same side of Georges Creek (the west side) is in the "Bakerstown" or Barton 4 foot, and is the closest operation in this seam to where it goes under the Creek at Pekin. It is a drift mine and ships over the same dumps as No. 3. The ventilation here at certain seasons is not very good, that is when the temperature outside is about the same as that inside, natural ventilation, being about all there is here. While it is true a small furnace is at one of the openings, upon most of my visits I found no fire there. The general condition of roads and drainage is only fair.

Moscow No. 1 on the east bank of Georges Creek is also in the Barton 4 foot, but is not being operated at present.

PIEDMONT MINING COMPANY.

Pekin Mine

George P. King, superintendent, resigned.
J. J. Dobbie superintendent. William Morgan, Foreman.

This mine is about as described at some length in a previous report. The ventilation is generally good, though it is by natural means. Many improvements have been made at this operation during the year, the most important being the opening to No. 4 mine and the tramroad leading to that mine. The company still ships over the Cumberland and Pennsylvania railroad, and the seam they are working is the Big Vein.

Moscow Mine

J. J. Dobbie, Superintendent. Charles Bowden, Foreman.

The Moscow mine of the Piedmont Mining Company is mining the Big Vein and having three openings will work for some time. The conditions here are much the same as at Pekin mine as to ventilation and general safety. Every precaution is taken to procure all the coal at both these operations consistent with safety. This mine also ships over the Cumberland and Pennsylvania Railroad. The general condition of roads and drainage here is good.

CHAPMAN COAL MINING COMPANY.

SWANTON MINE

Edward Clark, Superintendent and Foreman.

This company is operating at Barton, on the main line of the Cumberland and Pensylvania, over which road they ship. The Tyson at this place, and in fact from here south, ranges from five to seven feet in height and is a splendid coal. This mine is now doing some pillaring in their No. 1 opening and have made a long tramroad and two other openings round the hill. The coal here is a long distance from the dump and the haulage cost is no doubt high. There is still a considerable quantity of this valuable coal here, and it is hoped they will succeed in reaching all of it. Barton four-foot vein is located nearly at the foot of the hill and is also a drift mine. The ventilation at this operation is often not very good, though it always happened to be fairly good the days I visited the mine. It might be much worse some other days, being natural ventilation. I have recommended that artificial ventilation be put in here as they are about beyond the reach of their present ventilating system which is an air hole or heading driven out the side of the hill.

The following is about the condition of both mines during the year:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake to all Tyson........................	6,420	30	214
Outlet at air-shaft, Tyson	7,200		
Intake at the mouth of Barton 4-foot......	3,780	20	189
Outlet at Butchers Run air hole, "	4,600		

General conditions of roads and drainage rather poor.

FROSTBURG COAL COMPANY.

"GINSENG" MINE

Michael Daily, Superintendent and Foreman.

This mine is in the "Upper Freeport" or "Thomas Coal," is located at Reynolds, and ships on the Cumberland and Pennsylvania

Railroad. The mine is worked on a better system under the present management than it has heretofore been, and if kept running could be made a profitable operation. The coal here is as good as much farther south, averaging about 3½ feet and is comparatively free of faults at the places being now worked. The ventilation is by a blowing fan, and if the intake was enlarged, air-courses properly cleaned, and brattices made air-tight, it could be one of the best ventilated mines in the region. Mining machines of the "Ingersoll-Sargent" type are in use here for under cutting the coal. It is a very hard coal to mine by pick. All the operation needs is a little money spent to make necessary improvements, and I am sure the mine can be put upon a paying basis. This is the best condition I have ever found in this mine, it frequently being idle when I visited it:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the fan	12.260	14	876
Intake to 6th right	1,360	5	272
Intake to 4th right	1,102	6	184
Outlet at the mouth	13,440		

General condition of roads and drainage rather poor.

POTOMAC COAL COMPANY

Nos. 1, 2, 3 and 4, Barton Four-Foot

Henry Shriver, Superintendent. P. W. Gallagher, Foreman.

The Potomac Coal Company, a part of the Black, Sheridan and Wilson Company are operating the "Bakerstown" or "Barton four-foot coal, a seam lying about 400 feet beneath the Big Vein. The mine is located a short distance east of Barton and ships over the Cumberland and Pennsylvania Railroad. There are four openings here, No. 1 being the largest of the four, having nine left headings in it at present, and still advancing. Many very important improvements have been made here during the past year; air courses have been cleaned up, trap-doors and brattices built, and the drainage and general safety of the mine greatly improved. This is the largest operation in this seam in the State, employing last year about 80 men. The ventilation is furnished by a force fan, 20 feet in diameter, and is at all times good, since the air courses were fixed up. The mine had been idle for about three years, and much of its condition was due to that fact.

The following is an average inspection during the year:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake at the fan, No. 1 mine	28,400	55	516
Inside cut in 2nd left, No. 1 mine	6,300	4	1,575
Inside cut, 4th,and 5th lefts, No. 1 mine	2,460	5	492
Inside cut from 6th to 7th lefts, No. 1 mine	1,170	9	130
Inside cut from 8th to 9th lefts, No. 1 mine	2,400	8	300
Outlet of 4th left, No. 3 mine	2,850	5	570
Outlet of 5th left, No. 3 mine	1,004	4	251
Outlet at the mouth of No. 1 mine	21,200		
Return to air shaft, No. 4 mine	3,500	12	292

General condition of roads and drainage fair.

MORRISON LAND COMPANY.

William Harvey, Contractor.

The Morrison mine, in the "Upper Freeport" or "Thomas Seam," is operated exclusively for the Westernport Electric Railroad. It is generally in fair condition. The work is done by contract, and the few men who work here are about as well off as any where in the region. Its greatest merit is that the work is steady, because it furnishes the coal that generates the power for one of the best trolley lines in the county.

PHOENIX AND GEORGES CREEK COAL MINING COMPANY.

PHŒNIX MINE, BIG VEIN

John Rankin, Superintendent. A. Davidson, Foreman.

This is another of the mines operating in the Big Vein, in coal that was thought to be worked out years ago, and that is now and will for years to come be giving employment to many men. The operation has a series of openings made along tramways and the coal is hauled by horses and mules to the head of a long inclined plane, and from there lowered to the dump where it is shipped on the Cumberland and Pennsylvania Railroad. Two new openings have been made during the past year in the Big Vein, and other improvements of importance instituted. Pillars and stumps are mostly what are being worked here, and with decided success. The Barton four-foot seam is also being successfully worked here. This seam is very important from a commercial standpoint, and will in the near future be more generally developed. It has as a rule a good smooth bottom and is blasted in most places with entire success, with very little mining or undercutting. If the ventilation can be kept sufficient to carry off the powder smoke thus made, the work is very light and enables the miner to make fair wages.

This is an average inspection during the year:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake at mouth, Barton 4-foot............	6,090	20	304
Outlet of 1st. right, Barton 4-foot	3,185	9	354
Outlet of 2nd right, Barton 4-foot.........	2,310	4	577
Inside cut in main heading Barton 4-foot ..	2,985	7	421
Return to furnace, Bartoo 4-foot	8,370		

General condition of roads and drainage fair in the Big Vein; drainage poor in the Four-Foot.

CUMBERLAND-GEORGES CREEK COAL COMPANY.

PENN MINE

J. L. Connard Superintendent and Foreman.

The Penn mine of the Cumberland-Georges Creek Coal Company is located north of Phoenix and about 1½ miles from Westernport, and ships on the Cumberland and Pennsylvnaia railroad. This is another operation in the "Bakerstown" or "Barton" four-foot coal and is worked in the room and pillar system. The ventilation at this mine has always been poor, never meeting the law's requirements. They are now working all about the front of the hill and when this gives out they must put in ventilating apparatus, for it must eventually be done if they continue to ship coal. It would be economy to do it now and have their work as far advanced as they were able to make it. Some little improvements have been noticed in the roads and drainage here. The dump is one of the finest in the region. The company is still prospecting for the "Davis six foot" or "Lower Kittaning" but so far have met with very little success.

PIEDMONT-CUMBERLAND COAL COMPANY

HAMPSHIRE MINE

James McDonald, Superintendent and Foreman.

Hampshire mine, of the Piedmont-Cumberland Coal Company, is working the "Lower Kittanning" seam, at Westernport, and ships over the Cumberland and Pennsylvania Railroad. This operation has improved some during the past year, because it has been operated a little more steadily, but much more can be done, as in most other operations. The ventilation has improved very much, because a little more attention is being paid to it. It is necessary to have large volumes of air traveling in mines where "fast shooting" or blasting out of the solid is the rule, and shooting done at any time during the day. The "Marsh gas" or "Carburetted Hydrogen gas" noted in 2nd left heading is still present. The heading has not been worked during the year.

The following is an average inspection.

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the Fan	29,380	45	653
Intake to Main heading and 5th right	6,030	20	301
Inside cut from 3rd to 4th rights	6,750	9	750
Inside cut in 2nd right	4,320	15	288
Outlet at the mouth	14,070		

General condition of roads and drainage fair.

DAVIS COAL AND COKE COMPANY.

No. 17 OR BUXTON MINE

O. Tibbets, Superintendent. Robert Grant, Foreman.

This operation is in the "Lower Kittanning" or "Davis six foot" and is among the best mines in our State. The haulage system was described at some length in my last report. During the year the circuit, or rope haulage-way has been extended to make another square or rather circle and will later on increase the present capacity of the mine. The left side of the mine being practically abandoned for the present, a change is being made in the process of ventilation, that when all improvements needed in the change are made, will be of great benefit to the ventilation. At no time during the past year has the mine got below the lawful standard, but because of the great amount of blasting being done here, as in all mines working this seam. I have often seen headings with a considerable amount of smoke, as 100 feet per man per minute, will not carry off the smoke from indiscriminate blasting. One of the fans is now an exhaust, the other a "blower."

This is an average condition during the year:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the fan, right side	20,250	149	136
Intake to 1st right, right side	8,215	42	195
Inside cut in 2nd right, right side	5,400	50	108
Outlet of 3rd right, right side	3,140	18	174
Outlet of 4th right, old circuit	5,040	11	458
Outlet from right side of mine	8,580		
Return to fan, left side,	24,750		

General condition of roads and drainage much improved.

Garrett County Mines

G. C. PATTISON COAL COMPANY.

MINE NO. 1, BARTON FOUR-FOOT
MINE NO. 2, LOWER KITANNING

Carrol Pattison, Superintendent. George Moorehead, Foreman.

The Bloomington mines of the Pattison Coal Company are located about three miles up along the main line of the Baltimore and Ohio Railroad, over which road they ship, the only operation in this state loading direct on this railroad. The "Davis six-foot" or "Lower Kittanning" seam is operated where the old Empire mine used to be. This mine has been very materially improved during the year in ventilation and safety, timbers have been renewed, others set up where needed, air-courses cleaned up, trap doors put in order, and some built where required, brattices tightened. The old Brydon mine cleaned out for drainage and outlet for the ventilation. The result is the mine is in pretty good shape.

This is an average inspection during year:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the fan	16,800	25	672
Inside cut in lower heading	8,200	16	512
Intake to "Stoney" or upper heading	6,740	7	963
Combined outlets at Brydon's openings	18,560		

The Barton four foot or "upper mine" is reached by a long incline plane, and tramroad at the head of the plane. Sometimes I have found enough men in this mine to bring it under the provisions of the mining law, at other times not. The ventilation is by natural means, and is inadequate, the openings being much on the same level and the work lying flat. The coal is good.

MUNROE COAL MINING COMPANY.

ELK LICK AND NO. 3 MINES

G. C. MacFarlane, Superintendent.

H. B. Kight, Foreman six foot.

L. R. Kight, foreman "Barton four foot."

The Six Foot or Lower Kittanning, Elk Lick mine is located at Barnum, and ships over the West Virginia Central and Pittsburg Railroad. There is some doubt as to what seam is being worked here, but in general structure it is much the same as "Davis six foot" or Lower Kittanning, that is in operation all along the Potomac valley. Many improvements have been and are still being made at this operation. As stated in my last report much of the close coal had been worked out by the previous owners, regardless of the life of the mine. A new haulage way is being driven here and when completed will greatly improve not only their haulage system but the ventilation as well, in fact it has vastly improved the ventilation now. This seam at times is almost clean of binders, it seems the farther back they go the better the coal gets. They have taken the machines out of the mines and in future it will all be pick mined coal. A splendid new steel bridge has been built here across the Potomac.

This is an inspection during the year.

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the fan, "Six Foot mine"	32,400	45	720
Inside cut in 5th right, " "	6,000	3	2,000
Inside cut in 6th right, " "	5,340	8	667
Inside cut in 7th right, " "	4,025	3	1,342
Inside cut in 7th left, " "	3,675	8	459
Inside cut in 6th left, " "	3,145	9	349
Inside cut in 5th left, " "	4,650	8	581
Outlet near the mouth	13,750		

General condition of roads good; drainage fair.

Barnum No. 3

L. R. Kight, Foreman.

As stated in my last report the company had about completed a Fan of "Stein" make, to ventilate their mine, No 3. or "Barton four foot." This Fan has been doing good work here now for about one year and the company and men are getting better results. Barnum No. 3 is the second largest operation in the Barton four-foot seam in the State, and the consistency this seam shows is remarkable, it retains its height uniformly throughout the State, nowhere varying greatly. Improvements along the lines of drainage and safety have been made here during the year and a decided disposition shown to observe the mining laws.

This is an average inspection during the year.

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the fan	17,240	32	539
Inside cut in 4th right	3,450	10	345
Inside cut in 5th right	3,360	7	480
Outlet of 3rd left	3,600	15	240
Outlet of old opening,	5,040		
Outlet at the mouth	13,750		

DAVIS HARVEY COAL COMPANY, NOW POTOMAC VALLEY COAL COMPANY.

S. B. Brydon, Superintendent. A. A. McRobie, Foreman.

The Davis Harvey Coal Company have sold out their interests to the Potomac Valley Coal Company who are now operating this plant. The coal mined here is the "Upper Freeport" or Thomas Seam, and is generally very hard; it is the same seam with scarcely any material difference, that is being mined by machines at the Frostburg Coal Company's mines in Allegany county, and if kept clean is second only to Big Vein in steaming qualities. This is an inspection during the year:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake at the mouth	4,320	16	270
Intake to 2nd left	1,890	2	945
Intake to main heading	3,750	8	469
Outlet of 1st left	2,275	6	379
Return to furnace	5,250		

General condition fair.

BLAINE MINING COMPANY.

DILL MINE NO. 2

S. B Brydon, Superintendent.

William M. Drainer, Foreman resigned, succeeded by Thomas Fleming.

Dill No. 2, or as it has been more generally known, "North American" is situated about one mile south of Blaine and ships its coal on the West Virginia Central and Pittsburg Railroad. The mine is in the Davis Six Foot or Lower Kittanning, and probably excels anything in the State working this seam. The coal is comparatively clean, free to dig, and working under the ideal conditions to be found in a coal mine. This operation has its heading work farther advanced than any mine in the State, and probably in the country, but few rooms being worked as yet. The ventilation is furnished by a force fan and a glance at the inspection below will show its condition :

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the fan	42,450	57	762
Inside cut in 1st right slant	19,340	4	4,832
Inside cut in 1st right	17,280	5	3,456
Inside cut in 2nd right	7,760	8	972
Inside cut in 6th right	11,750	4	2,937
Inside cut in 7th right	40,360	10	1,036
Inside cut in 8th right and to main heading	5,775	3	1,925
Inside cut in 10th left	4,750	4	1,187
Inside cut in 9th left	7,140	5	1,428
Intake to 8th left	6,380	4	1,595
Outlet at the mouth	26,750		

During the year extensive improvements have been made in drainage and also in roads. A heavier rail has been laid on their main haulage, and the lighter rail will be used for the cross headings which will increase the output with the same amount of power.

GARRETT COUNTY COAL AND MINING COMPANY.

DODSON MINES

H. B. Douglas, Superintendent.
William Jones, Foreman resigned. Martin Abernathy, Foreman.

The Dodson mines of the Garrett County Coal and Mining Company have been generally speaking only in fair shape during the past year. At some visits I would find conditions as to ventilation very good, and again would find on other occasions not good. Mine No 1. is the only one of their three operations working just at present, but the company contemplates working all three openings very soon. They ship over the West Virginia Central and Pittsburg Railroad and are located at the town of Dodson, built by the company, on the Maryland side of the Potomac. • The company suffered quite a serious loss by the burning of their store and office. They are now rebuilt, and the office is of brick with a fire-proof vault. Many improvements in their haulage system are being made here, and they are preparing to put in a tail rope and stationary engine. This is one of the best inspections during the year:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the fan	43,470	75	580
Inside cut in 4th right	5,875	11	534
Intake to 5th right	2,868	17	287
Intake to 6th right main heading and 6th left	5,525	16	345
Inside cut in 5th left	5,400	12	450
Inside cut in 4th left	4,210	20	210
Outlet at the mouth	51,360		

Overcast system of ventilation is being used here for transfers of the air current, but they are poorly constructed, not being kept airtight.

UPPER POTOMAC MINING COMPANY.

BIG SEVEN MINE

R. Y. Williams, Superintendent.

Robert Brown, resigned, George Lytle, Foreman.

The Big Seven of the above named company is an operation in the Lower Kittanning or Davis Six Foot. It is almost at the top of the hill at this point being about on the ridge of the Dear Park anti-cline. Extensive improvements have been made here during the past year. A locomotive being put into service on the tramway, new engine house, new head house on top of plane, new blacksmith shop, and a Crawford McCrimmon ventilating fan. On my last visit the company were staking out about 14 double houses down at the railroad. The ventilation at this mine has been good during the year.

This inspection shows its condition:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake at the mouth	14,880	40	372
Inside cut in 1st right	2,000	6	333
Inside cut at 2nd and 3rd rights	7,700	18	428
Inside cut in 4th right	3,600	7	514
Inside cut in main heading	7,000	4	1,750
Return to fan	22,460		

THE STOYER RUN COAL COMPANY.

Thomas Robinson, Superintendent and Foreman.

This operation has not been doing very much during the greater part of the year 1905, but at present they are working quite steady. They have two openings in the Davis Six Foot or Lower Kittanning and one in the upper Freeport, so it is claimed, but I am inclined to believe that it is the "Mahoning" coal. The company have made some improvements during the year, a drift and tramway to No. 2, Kittanning, a plane of about 650 feet to the upper mine, and a small stationary engine there to haul the coal out of the upper mine, which is dropping about 5 or 6 per cent. The ventilation at all of these operations is by furnace, but the officials told me when the operation warrants it they will put in a fan.

No reading in other openings, but ventilation is fair.

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake at the mouth of upper mine	4,200	14	300
Return to air shaft at furnace	4,400		

BEECHWOOD, CUMBERLAND COAL COMPANY.

F. F. White, Superintendent.
Charles T. Bail, Foreman resigned. John H. Smith, Foreman.

This company have but recently been organized, and are composed of Pennsylvania people, and they are successors of the Lake Ports & Atlantic Coal and Coke Company, about one mile north of Gorman. When I visited this operation but few men were working there, only on one occasion did I find enough to bring them within the provision of the mining law. This mine is also going to the dip, a small stationary engine being used to haul the coal out of the main heading or slope and also to let the mine cars down to the dump and bring the empties again up to the mine. The ventilation is by a small furnace and at present meets the requirements.

This is about the average condition:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake at the mouth of the mine	4,920	12	410
Return to furnace........................	5,100		

Roads and drainage none of the best.

NETHKINS COAL AND COKE COMPANY.

John Jose, Superintendent. C. C. Chenowith, Foreman.

This mine is located at Bayard, on the West Virginia Central and Pittsburg railroad, and is in the Upper Freeport or Thomas seam. Some delay was experienced in getting siding here, but they now have siding and dump built, and are in good shape for making quite extensive shipments. The ventilation is by means of a furnace, about the best built furnace in the Potomac valley and is at all times within the law. It is to be hoped that this company may prove successful in developing their coal here as it means much to the town of Bayard.

The Fire Clay Mines

UNION MINING COMPANY

MT. SAVAGE FIRE CLAY

Henry Shriver, Superintendent. James Yantz, Foreman.

The Fire Clay mines of the Union Mining Company, located on Savage Mountain not far from the Pennsylvania State line, have had a very prosperous year. Mining about 11,000 more tons with less labor than was done in 1904. In 1904 this company had 45 miners and 105 laborers, this includes inside and outside laborers and drivers and mined 48,000 tons of clay, during the past year with the same number of miners but with 30 less laborers, they have produced 59,389 tons. This is no doubt very gratifying to the company as the cost of mining in 1904 was abnormally high. The mines are in a general sense, in much better condition than they were the previous year. Safety and ventilation being decidedly improved and about all that can be done with roads and drainage done. This question of drainage as I stated in my last report is a serious question, and one that the company would be very willing to have solved. The soft clay being generally at bottom sides and top, and slacking like lime when the air and water get at it, makes it even on a plane like there is in No. 6 mine very muddy. They are opening another mine south of their present openings, and have now a very fine quality of clay. The fire brick business is to Mt. Savage what food is to the body, the very life of it, and anything that destroys this industry or shortens its life is a public enemy.

BIG SAVAGE FIRE BRICK COMPANY.

J. N. Benson, Superintendent. Edward Finzel, Foreman.

The fire clay mine of this company is located in Garrett County and is in the famous Mt. Savage Fire Clay belt. The output here has fallen slightly under that of the previous year, but that was largely due to having mined much more of the Flint clay this year than last. The ventilation at this operation is generally very poor. As here is but one opening and no shaft or air-hole, it is, except in the winter season, unfit for men to work in. It is true they have a fan here and a wooden intake about 12 inches square; but the resistance and leakage is so great on this wooden pipe that it does very little good to the men at the inside places. I trust before another report is made that the ventilation here will be improved. The most economical method is to put an air shaft out to some of the inner headings. The brick yard is located at Allegany, a town on the Cumberland and Pennsylvania Railroad, and about 2½ miles from the mine.

SAVAGE MOUNTAIN FIRE BRICK COMPANY.

C. H. Shuckhart, Superintendent.

This company have abandoned their old mine since the completion of the tunnel that was driven to reach clay that was impracticable to mine from any of the previous openings worked here. In this new mine conditions are about all that could be desired. Ventilation is good, drainage is good, and the general safety of the mine is first-class. Many improvements have been made here during the year. Combination blacksmith and repair shops have been built, and a very comfortable shanty or tool house. There are about eleven men employed here the year round and it is said to be the best fire clay mine to work in, in our State. Production fell off slightly here last year; in 1904, 10,000 tons were mined, and but 9,000 in 1905, this is due no doubt to the change from the old to the new mine. They are located in Garrett County about 3 miles west of Frostburg, and haul their clay in wagons down the National Pike to their brick yard on Bowery street, Frostburg.

Fire Clay Mining Statistics

Operating Company	Miners	Laborers	Total	Days w'k	Tonnage	Fatal Ac'id'nts	Non-f't'l Ac'id'nts
Union Mining Company ...	45	75	120	290	59,389	......	......
Big Savage Fire Brick Co.	10	3	13	275	10,000	......	......
Savage Mount'n F. B'k Co.	7	4	11	300	9,000	......	......
	62	82	144	865	78,389		

These statistics go to show that there has been an increase in the production of fire clay and a falling off of the number of men employed during last year, both of these causes are apparent in statistics of the Union Mining Company's mines. The laborers are still in excess of the miners, though the ratio was cut greatly during the year. When Union Mining Company get through with their recovery of old and abandoned workings, where they are now getting much valuable flint clay, then the expense of mining the clay and consequently the number of laborers will be reduced. There are thousands of acres of this valuable clay in this State, and it is but a short time when there will be a much larger development of this valuable mineral.

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ANNUAL REPORT

OF THE

Mine Inspector for Allegany and Garrett Counties Maryland

TO HIS EXCELLENCY

GOVERNOR EDWIN WARFIELD

From May 1, 1906, to May 1, 1907

THOMAS MURPHY, INSPECTOR

1907
C. T. CLAYTON, Printer
Lonaconing, Maryland

Letter of Transmittal

TO HIS EXCELLENCY, EDWIN WARFIELD,
GOVERNOR OF MARYLAND

SIR: In compliance with the requirements of Chapter 124, of the Acts of the General Assembly of 1902, relating to Mines and Mining, I have the honor to submit herewith my third annual Report.

THOMAS MURPHY,
INSPECTOR

Review and Recommendations

The year 1906 has been one of the most prosperous in the history of coal mining in this State, both in point of tons mined and in number of fatal accidents. In 1906 there was mined in the State 4,880,620 long tons or 5,491,294 short tons; of this tonnage 4,491,390 tons was mined by pick, and 381,230 tons were mined by the use of machine. Allegany County produced 4,181,658 tons by pick; 381,230 by the use of machine, all machine coal mined in the State being mined in Allegany County. This is an increase of 218,521 tons. In Garrett County there was mined 317,732 tons all by pick, an increase of 11,210 tons. The increase shown in Garrett County is correspondingly much greater than in Allegany and before many years, with the rapid development and the area of coal that can be reached by drift, will bring the tonnage of the two counties much closer together. As noted in my last report, Ocean No. 7, of the Consolidation Coal Company, surpasses all other mines in point of output, from what is practically one opening. Its production this year was again over 1,000,000 tons. In the production of coal in the State there were engaged 4,412 miners, 401 drivers, 628 inside laborers, 760 outside laborers, making a total employed in coal mining in the State of 6,201, a decrease in the number of persons employed of 29, though this may be due to some inaccuracy of figures furnished by the coal companies.

In the matter of recommendations it seems that there is not much attention, as a rule, paid to them. The safeguarding of the lives and health of employees should always be the paramount object and that form of law or government that comes nearest to that end is the one that we should all aim to reach. I do not believe in any foolish sentimentality because men are miners or because they are as some demagogues express it, "subterranean workers," but because the work they are engaged in is more or less dangerous and that every precaution for the protection of life and health should be taken. I do not believe it should be necessary to have great calamities before we take the proper precautions. It is true this arouses public sentiment on the subject and then politicians will very often unfortunately for the good of the industry control, not only the enacting of the laws relating thereto, but sometimes their enforcement. They pass some kind of legislation to satisfy public clamor, and when it is dissected, it often proves a delusion and a snare resulting in no particular good to any one engaged in the industry. More attention should be given to the recommendations of the people who are responsible, than to politicians whose aim is sometimes to befog the public mind.

I have reiterated in previous reports the necessity for amendment to the present mining laws, and as I become more and more familiar with the work of inspection, this appeals more strongly to me. The ventilation in the mines of the State, while greatly improved, in late years, yet there are certain conditions that are surely creeping into mining here, that will undoubtedly increase the danger. I refer particularly to the reckless use of explosives; this is the most serious question in the mining industry today. The cause for this is perhaps two-fold: first, that mine owners want to increase the miners' capacity, and sometimes the reasons for this are not altogether unselfish. Second, the miner wants to earn all he can with the least possible resistance, consequently the practice is fast creeping upon us regardless of the dangerous possibilities with which it is pregnant. It is better to take this question up intelligently now than to defer it until some time later on, when mayhap some great disaster strikes us. There should be prohibited by law the taking into the mine of 25 pound kegs of blasting powder. The amount taken in should be but enough for one shift or day's work; this should be made imperative; no blasting out of the solid should be permitted; every miner should be forced to prepare his coal before blasting under heavy penalty. Coal companies should not be permitted to blast indiscriminately where they have machines to undercut the coal. This, and mines where they make no attempt to prepare the coal, but simply bore a hole and put a large blast of powder, sometimes as much as three feet long, is rapidly producing a condition in some Maryland mines similar to that in adjoining States where explosions are horribly frequent. There are some that contend that more air is the remedy and while there should be a much higher minimum amount of air per man—say double the amount—where blasting is done out of the solid, or in mines and headings where machines are in use, yet this does not by any means eliminate the danger of which I speak. That is why I believe all shot firing should be done under the strictest supervision, and generally after the miners have done their day's work and left the mine. This may result in some little loss in output here and there, but the safety to life and property will be immeasurably enhanced.

In some States the practice of slowing down the fans while shot firing is going on, is claimed to be a great safeguard to those engaged in this dangerous work. This is true in Iowa, Kansas, Missouri, and is being agitated in many other States. There are good reasons that can be given for this; suffice it to say, that the States where this practice has been followed, have had no explosions in the time it has been in vogue, about four years.

On the subject of electricity in coal mines, our present mining law does not contain a word. Now this is a very important subject and the ever-increasing use of electric power for the mining and hauling of coal makes it imperative that some legislation be enacted for the safety of employes. There are four mines in the State that are wholly or in part operated by electricity and the number is likely to increase rapidly. It is therefore necessary to amend the laws to meet this comparatively new and highly dangerous improvement in mine methods.

The question of mine maps does not go far enough under the present law; the law only requires that the coal companies must keep at their office at the mine, maps or tracings of their works for inspection by the inspector. They should be obliged to file copies of their maps at the office of the inspector; such maps or tracings of their mine workings might often enable the inspector to avoid much trouble and probable danger.

Every report for the last four years has asked for some change in that part of the law relating to the use of oil for illuminating purposes in mines. The present law requires a quality of oil costing too much, and yet little better for illuminating and sanitary purposes than the oil used in Ohio and many other States. I would recommend a section similar to the Ohio Mine Law, and that this be made a part of the Maryland Mining Law; then with reasonable standards set, I think that every interest would endeavor to put it into effect because many of our miners are now using a high grade of oil, and many others are using "sunshine." If everyone would co-operate to make this effective, and I think they would, it would reduce the poisonous smoke in the mines, and greatly benefit the health of the miners working therein.

There should be a provision made for the employment of and examination of fire bosses. We have a couple of mines in the State that are generating a very small amount of explosive gas or carburetted hydrogen, and to be ready for the time when we may have more of it than at present, we should copy the most comprehensive laws in practice in other States on this subject. It should also be a requirement for the office that an applicant for Mine Inspector should undergo an examination, because the duties are getting more and more exacting, and this is as it should be.

Mine foremen should also be required to have some qualification, more than is at present the case. Some system of State licensing, so they would be able to hold their jobs only because of fitness, is needed, and I believe it would improve the efficiency to both operator and miner, the one for whose life and well-being he is responsible and the other whose property he has in charge.

The law should require mine owners to fill out blanks provided by the Mine Inspector at the end of each year relating to statistics, acreage worked out, and unworked territory, tons produced, accidents, etc., and all other information not of a private nature. Nearly all the coal companies furnish me this information now, but they are not obliged to under the law. I think only one company refused to furnish me the statistics asked for, but I got them just the same. It is of course, much better to have the Mining Law explicit on this very important matter.

There should also be a provision requiring mine owners to have a properly kept place for miners to make a change of clothing at mines that are wet. In some instances workmen have long distances to go from their working places to their homes, and if they are wet from water dropping from the roof, or in the bottom of their working places, they should have a comfortable place in which to make a change of clothing. It could be left to the judgment of the mine inspector in what mines this would be necessary. To make it apply to all mines might result in its purpose being defeated.

In order that mine inspectors may hereafter be able to properly perform their duties, the law should be changed to say that their visits should be made not longer than every three months instead of every two months as at present. If this is not desirable, then an Assistant Mine Inspector will in all probability be needed. If the trips were reduced to four per year instead of six as at present, one man might be able to perform the duties for some years to come.

The providing of a fund for the expenses of the Mine Inspector's office is absolutely indispensable to the proper performance of his duties. The sum paid for protection to the mining industry in this State is miserably small in comparison to every other State in the country producing the same number of tons and some of them much less. It is bad enough to spend only about $1,800 to $2,000 per year, but when the inspector must wait until the legislature passes a special act to meet the expenses of the office incurred in the previous two years, it almost looks farcical. If the sum of $500 is appropriated each year, the inspector using only such part of that as may be necessary, or all of it if needed, this would be actually but very little increase over the present expense. For many years the inspectors have been procuring what supplies were needed—or rather what they thought might be paid for—and not being sure that they would be paid—the office is perhaps the poorest equipped in the country. A bill is now pending before the present session to pay the expenses of the past two years. This amendment would simply relieve the legislature of the recurrence of claims at every session to be paid by special bill, and not operate to increase the expense of government in any material way, while by making funds immediately available to pay for necessary expenses, the law would expedite the transaction of the State's business and greatly increase the value of the office of Mine Inspector to the people of the State.

It would have another good effect and that would be that mine inspectors would not be able to put forward the excuse that they were not going to spend their salaries in expenses when they did not know whether they would ever be reimbursed. None of these proposed alterations in the laws have any special bearing upon the convenience of the interests operating the mines, involving no particular expense nor imposing any hardships upon the employes of the mining corporations. In the interest of sanitary conditions, the provisions as to blasting and the provisions as to the quality of oil and all other recommendations are greatly needed, and will benefit operator and miner alike. The matter of funds for the administration of the office of mine inspector is plain—too plain to need explanation. If it is of importance to the State to safeguard the persons and property of citizens by appointing an inspector, then it is important to provide that official with power to do his duty while in office.

I beg to express my appreciation of the many kindnesses shown me by miners and mine owners and the co-operation and help that I have generally received from the many engaged in mining in the State. For much of the information contained in this report, I want to thank the mine owners who kindly furnished the same.

Maryland's Mine Inspectors

Name	Tenure of Office
PETER CAIN	From 1st. Monday in May 1874, to 1st. Monday in May, 1876.
OWEN RIORDAN,	1st Monday in May, 1876, to 1st. Monday in May, 1878.
OWEN RIORDAN,	from 1st. Monday in May, 1878 to 1st Monday in May, 1880.
THOMAS BROWN,	1st. Monday in May, 1880, to 1st. Monday in May, 1882.
THOMAS BROWN,	1st. Monday in May, 1882, to 1st. Monday in May, 1884.
DENNIS SHERIDAN	1st. Monday in May, 1884, to 1st. Monday in May, 1886.
DENNIS SHERIDAN	1st. Monday in May, 1886, to 1st Monday in May, 1888. Mr. Sheridan died during the early part of his term.
CHAS H. HAMILL,	appointed September 9, 1886, began his duties Sept. 16, 1886, and served the rest of Mr. Sheridan's term to May, 1888.
R. T. BROWNING	1st. Monday in May, 1888 to 1st Monday in May, 1890.
R. T. BROWNING	1st. Monday in May, 1890, to 1st Monday in May, 1892.
F. J. McMAHON,	1st. Monday in May, 1892, to 1st. Monday in May, 1894.
F. J. McMAHON,	1st. Monday in May, 1894, to 1st Monday in May, 1896.
OTTO HOHING,	1st. Monday in May, 1896, to 1st. Monday in May, 1898.
ALEX. RANKIN,	1st. Monday in May, 1898, to 1st. Monday in May, 1900.
JAS. P. CARROLL,	1st Monday in May, 1900, to 1st. Monday in May, 1902.
JAS. P. CARROLL,	1st. Monday in May, 1902, to 1st. Monday in May, 1904.
THOS. MURPHY,	1st. Monday in May, 1904, to 1st Monday in May, 1906.
THOS. MURPHY,	1st. Monday in May, 1906, to 1st Monday in May, 1908.

Mr. R. T. Browning is the only Inspector that has been appointed from Garrett county, all the others being from Allegany county.

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Some of these streams cut very deep, exposing all coals in the Conemaugh and Allegany formations, and for a limited area affording complete drainage. The bottom of the syncline or basin is very well located now at a point near Frostburg; from this saucer-like basin, the coal measures rise in every direction. As a general proposition the thickest coal seams will always be the first to be mined; this

Drainage of the Mines

In my last report there was a chapter devoted to the coal area of Maryland. This gave a very brief outline of the various coal seams in the State, those being worked extensively, and many that are practically untouched. This does not mean that they are all an uncertain quantity, or that the many coal seams here are not being worked, for they are. Every seam of commercial value is being operated at some point or other in the State. There is no question that has a more important bearing on the developing of the lower coal measures, than the question of drainage. This is particularly true of Allegany county. In Garrett county the most of the coal veins known can be mined above the water level, and if ordinary judgment is used in opening, the question of drainage will never be a serious one there. In Allegany county we have a basin known geologically as "The Georges Creek Basin." It is a broad, deep syncline containing all of the seams in the Maryland coal measures. It is generally accepted that Georges Creek is a drainage for all these coal seams; it is true it drains much of the Big Vein or Pittbsurg Seam, from a point below Midland all the way down the Creek until it empties into the Potomac. In the upper end of the basin the big vein is drained by Braddock's and Jenning's Runs. The Franklin or Little Clarksburg, the next workable seam below the Big Vein cannot get natural drainage much above Lonaconing, but from there to Piedmont it rises higher and higher above the Creek.

The Bakerstown or Barton four foot goes under Georges Creek at the lower end of Pekin and like the other seams, is well upon the hill tops at Piedmont. The Upper Freeport is below water level at Barton, gradually rising as it approaches the southern end of the basin, while but a small area of the six foot or Davis Seam can be worked above water level in the centre of the syncline. Much mining can be done on the out-croppings of the western slope of the syncline near Savage Mountain, because of the many branch streams that flow from there into Georges Creek. The same is true of the eastern slope of Dan's Mountain, and it is likely that very shortly there will be large developments up some of the streams on this side of the syncline. Some of these streams cut very deep, exposing all coals in the Conemaugh and Allegany formations, and for a limited area affording complete drainage. The bottom of the syncline or basin is very well located now at a point near Frostburg; from this saucer-like basin, the coal measures rise in every direction. As a general proposition the thickest coal seams will always be the first to be mined; this being true, the next largest seam after the Big Vein is the Davis Six Foot or Lower Kittanning. This seam lies from 800 to 825 feet below the Big Vein or Pittsburg Seam. There is a large area of this coal in the Georges Creek Basin, running almost the entire length and width of the syncline, approximately 20 miles long by 5 miles wide. To drain this vast amount of coal is a problem that will confront the mining engineer of the future. All practical coal men today know the expense, inconvenience and annoyance of pumping. It is only when no other method presents itself that up-to-date mine men continue pumping their accumulations of water.

The Consolidation Coal Company have recently completed a drainage tunnel from Clarysville to the bottom of Hoffman's Slope, a little over two miles long, for the purpose of draining their property. Some such method of drainage had been suggested some thirty years ago for this same property, but at that time the need of it did not become so apparent until the company had some years' experience in pumping. How much better it would have been if the properties could have had the advantage of this method of drainage from their earlier development! What a saving in energy and waste of money, and how much safer than depending on the uncertainty of pumps!

A drainage tunnel could be driven from some point on Warrior Run near Cresaptown into the bottom of the Georges Creek Basin, that I believe would afford complete drainage for all the coal possessing any commercial value. It is doubtful if this tunnel would need to be more than three miles long, that is, the main drainage tunnel; of course it might require branch tunnels of short distances to reach some of the flat work in the bottom of the syncline. The plan that suggests itself to my mind in connection with this tunnel, would be that the State take it in hand. There is no better way that the State could spend about $1,000,000 than by paving the way for an easy development of the valuable coal seams in the western part of the State. Private corporations could not agree on doing a work like this that means so much economic value to the commonwealth. Some would be afraid that one company would derive more benefit from it than another, and this would no doubt be true. If the State would drive the tunnel it could be made a source of revenue for perhaps the next 500 years. Each operating company using it as an outlet for their water would be charged so much per ton, say one cent, assuming that a company would put water into the tunnel proportionately with the number of tons mined. The revenue thus derived from one seam of coal alone would more than double the cost of construction, and as a safety precaution, from accumulations of water and probable gas, it can hardly be estimated. The water itself could be utilized. It would be an ever-flowing and constant stream, and always increasing. Why not give it drop enough at the opening and wire the power thus furnished back to the mines or towns, and this would be the means of additional revenue to the State. Some may say that this is away in the future, but I do not agree to that. I think it is a live question and if found practicable could be worked out in the next few years. I trust this matter will be taken up by some people in the State and given the consideration I think it merits.

Weights and Weighing

The matter of weights and weighing has been given my most careful attention during the fiscal year, from May 1906 to May 1907.

The increasing demand for testing of scales requires a great deal of the inspector's time, and while it is one of the most important branches of the coal mining industry, it is also one of the hardest of settlement.

The history of coal mining is so full of imposition on the part of mine owners in the past and some of those of the present that it is hard for miners to believe that any company will deal justly with them in the matter of weights.

I have watched this question of weights as carefully and closely as I am able, and at no time have I seen anything that would lead me to believe there was a deliberate attempt on the part of anybody operating in this State to deal unjustly with the men in the question of weights. I have appeared at the scales of the various mines at all times, and under all circumstances, without the knowledge of anyone, and if there was anything wrong all the time as alleged by some people, I would surely find it some place or other, and some time or other. One matter that may be worthy of mention is that the requests that I get to test scales come mostly from the mine owners or their representatives. I have not offered any recommendations or changes in the mining law on this question, because I believe that it is already amply provided for. I do not believe that any coal company could maintain antipathy or discriminate against men who would assert their right to place a man at the scales to look after their side of this question. The mining law already provides for that, and it only requires a majority of the men working in any mine to signify their willingness to have a checkweighman.

One of the most remarkable cases on this weight question happened at mine No. 14 of the Georges Creek Coal & Iron Co. Clerk Hamilton of the before mentioned coal company telephoned me one day that he believed the scales at No. 14 was not in good condition, as the difference at that mine between the mine weights and the railroad weights was so great that he thought their scales was badly out of shape. He asked me to test the scales with my test weights. The next morning after getting my weights together, I went to No. 14 and tested the scale on all four corners and in the center; found it corof 1904 tends to show that the British death-rate is in fact higher than in America.

	America	United Kingdom
Tons of coal produced	352,310,427	232,428,272
Miners employed	594,768	833,629
No. of tons per miner	593	279
Average number of days	202	262
Average daily tonnage per miner	2.93	1.07
No. of miners killed	1,996	1,034
Death rate per 1,000 men	3.35	1.24
Death rate per 1,000,000 tons	5.66	4.44

If the comparison is stopped at this point one element remains unconsidered, for the American tonnage exceeded the British by almost 100,000,000 tons. To produce the American tonnage would require 1,262,761 British miners, while to produce it in 202 days would require 1,637,838 British miners. The employment of that number of British miners estimating at their own death-rate would cost about 2,035 lives, or at the rate of about 5.77 per 1,000,000 tons mined, which is higher than the American death-rate. Putting the matter in another form, the death-rate is reduced 1.33 per 1,000,000 tons by producing coal at a slower speed, and the American death-rate is increased by 1.22 per 1,000,000 tons by the higher intensity of production; but to balance this loss in part, the Americans have the use of 1,042,070 men for employment in other industries.

While the foregoing may be all true, figured out mathematically we still must admit that there is a great difference in the old world and here. Looking over the reports received from the home office in London, the following statistics relating to the enforcement of the laws against mine owners, agents, managers, and workmen is to my mind very significent. Prosecutions of owners, agents, and managers for offenses in 1902 were 73. Convictions were had in 52 of these cases—about 71 per cent. Prosecutions of workmen in the same year reached the number of 859. 829 of these were convicted—about 91 per cent. In 1903 there were 50 prosecutions of owners or their agents; 39 were convicted—about 78 per cent. In the same year there were 873 prosecutions of workmen, and of these 829 were conviction—about 90 per cent. In 1904 the number of owners or their agents prosecuted were 35; of this number 25 were convicted—about 71 per cent. In the same year 946 workmen were prosecuted, resulting in 918 convictions—about 91 per cent. In 1905 there were prosecuted 72 mine owners or their agents; of these 43 resulted in their convictions—about 60 per cent. In the same year there were procedings against

953 workmen; out of this number 917 were convicted—nearly 91 per cent. In 1906 there were prosecuted 30 owners or their agents; of these prosecutions 27 resulted in conviction—just 90 per cent. In the same year there were 824 prosecutions of workmen; 794 were convicted—nearly 91 per cent.

There were no jail sentences in the case of mine owners; but six in the case of miners in 1906. The amount of fines against owners or their agents was £125 19s. 6 d.

Of the jail sentences against workmen, there was none for a longer period than one month.

The fines against workmen aggregated £906 0s. 10d.

The average fine and cost was £1 2s. 10d.

There were in all six convictions for interfering with ventilation; 73 for violation of rules about safety lamps; 135 for violation of rules about matches and smoking; 51 for violations of rules about explosives; 107 for violation of rules about timbering. (As compared with 141 in 1905 a decrease of 34;) 198 for offenses in connection with haulage; 22 for disobeying orders; 25 for cruelty to animals; 15 for being about the mine in a state of intoxication; and 162 for miscellaneous offenses.

I quote these figures from the latest English reports at hand to show the army-like discipline they evidently maintain in and about their mines. As they say themselves there are still miners who willfully risk their own lives as well as the lives of their fellow workmen by disregarding the regulations designed to promote the safety of the mines.

While the owner or operator should be made to observe all the necessary precaution for the safety of employes, yet the long years of experience in the old world demonstrates the fact that as long as we have individual miners, danger from individual carelessness is as potent today as it ever was.

Fatal Accidents in Coal and Fire Clay

Date	Name	Occup't'n	Married or single	No. in Fmly.	Nativity	Residence
1906 Aug. 11	Owen Logsdon	Driver . .	Married.	. . .8. .	American.	Eckhart. . . .
1907 Feb. 19	Chas. H. Wolfe	Miner . .	Married.	. .10. .	American.	Luke . . . . . .
Mar. 4	Alex. Brown. .	Foreman	Married.	. . .6. .	Scotch. . . .	Woodland . .
Apr. 1	John Lilie.	Miner . .	Single. . .	. . . . . .	American.	Mt. Savage

FATAL ACCIDENT IN THE

1906 Aug. 6	Louis Martin. .	Miner . .	Single. . .	. . . . . .	American.	Mt. Savage

This is a very remarkable showing as to fatal accidents in coal mining in Maryland. It is probably the lowest that has ever occurred, considering the number of men employed, and the amount of coal mined in the fiscal year. The total number of employees in the State engaged in coal mining is 6,201. Thus it will be seen that the death rate per 1‘000 employees is very low, being but .64

There is nothing to equal this in the whole world, there being over 1,000,000 tons mined for each fatal accident.

This is for the fiscal year, from May, 1906, to May, 1907.

Mines in Maryland, May 1, 1906-7

Age	Cause of Accident	Mine	Name of Company	Extent of Injury
40	Caught between rib and car.....	Eckhart.	Consolidation Coal Co	Died in five days
46	Caught by fall of draw slate.....	Buxton .	Davis Coal & Coke Co	Died in a few hours
46	Caught between trip and rib...	Ocean No. 7...	Consolidation Coal Co	Died in two days
30	Caught by fall of breast slate....	Union No. 2...	New York Mining Co	Killed outright

MARYLAND FIRE CLAY MINES

Age	Cause of Accident	Mine	Name of Company	Extent of Injury
25	Caught by delayed blast.	No. 6 ...	Union Mining Co....	Killed instantly

Fatal Accidents: Description

The total number of accidents during the fiscal year, from May 1, 1906 to May 1, 1907 was 61. Of this number, five were fatal, fifty-six non-fatal.

Between this and the last fiscal year is a decrease of eleven; a decrease of three in non-fatal accidents, and eight in fatal accidents. Four of the accidents were in coal mining, and one in fire clay mining. Of the non-fatal accidents, all occurred in coal mining. The number of fatal accidents is very low, probably the lowest in the history of the region.

The death rate is compiled from January to January of each year. All other statistics of tonnage etc. ends with the calendar year. This is the time when all statistics should begin and end, and thereby, much trouble, and probably inaccuracy, be averted. We take the year 1906 for instance. In the first four months of that year, there were six fatal accidents in coal mining, while in the last eight months, from May to January 1907, there was but one in coal mining, and one in fire clay mining; making a total of eight for the calendar year, while there were but five in the fiscal year, as stated above.

I have endeavored to get statistics of the accidents, showing the name, age, nationality, married or single, number of days lost, number in family, etc. None of these are idle questions, and should be answered by the foremen, to the best of their ability. There has been a system of reporting and compiling statistics in Maryland, started that if kept up will show in an intelligible manner, the causes and effects of accidents in the coal mines.

Of the fatal accidents in the fiscal year, from May 1906 to May 1907, one was being caught by a slope trip, and one was being caught by a close rib, one by a fall of draw-slate, and one by a fall of breast-slate. The fatal accident in fire clay mining was caused by a delayed blast. While these death are recorded as accidents, strictly speaking, none of them were such.

Owen Logsdon was caught by a rib that was unlawfully close.

Alexander Brown was on the slope when a trip jumped the track; a place where his duties did not require him.

Charles H. Wolfe, going up too soon after a blast to see how "she had done;" the draw-slate fell on him, killing him.

John Lilie went under breast-slate in Union No. 2, that he knew was bad, and according to his "butties," was told not to; but did so.

Louis Martin, killed in the fire clay mine, had done something that fire clay miners never do; that is, going back to see what effect the blast had, that they are in the habit of putting in, the last thing they do before going home, and do not go near again until the next morning. Martin had five shots charged, and when they went off he thought they had all fired, and approached to see the effect, when one, that was hanging fire went off, striking him full in the face, killing him almost instantly.

It will thus be seen that if the proper precaution be taken by workingmen and companies, accidents would be reduced to a minimum. This year Ocean No. 7, of the Consolidation Coal Co., have fitted up a very comfortable ambulance for removing the dead and injured: and the same thing could be done at the other mines in the State, where they are sorely needed. It does not mean that they have not a conveyance at all the mines, but they are not as comfortable as they should be. Operstors should also be required by law to have a medicine case at each mine, fitted with all the necessary supplies for the relief of the injured.

THE COAL MINE ACCIDENTS

1—Aug. 11, 1906, Owen Logsdon, driver, employed in Eckhart of the Consolidation Coal Co., was caught between a car of his loaded trip and the rib, about 4:00 p. m., on Saturday evening, August 11, 1906, and died five days after, in a hospital at Cumberland. The accident occurred in a heading, known as the Short Heading. This heading is driven from the left side of Price's Heading. About 125 feet from this, while hurrying on what was said to have been his last trip, it is supposed that he forgot about the rib being too close, and was caught by the cars and so crushed that he died from the effects five days after. This accident could have been avoided, had the proper attention been given this rib by those in authority.

2—Feb. 19, 1907, Charles H. Wolfe was injured by a fall of drawslate at the Buxton Mine, of the Davis Coal and Coke Co. This accident is like many others that I have seen in my term of inspector. Sometimes this draw slate falls at once, and other times hangs until pulled down; but this time it fell as Wolfe went up to see the result of a blast, with the effect above stated.

3—March 4, 1907, Alexander Brown, inside or second foreman, at Ocean No. 7, of the Consolidation Coal Co., was caught by a trip of empty cars on the old slope, and crushed so badly that he died in a few days. He was in the habit of traveling a great deal on the slopes. The trip jumped the track, and caught him as he was about at the man-hole. These man-holes are along the slope, at short distances apart. This was a very distressing accident, but it is another demonstration that there cannot be too much care exercised. Had he used the man-way, this accident would have been avoided. It seems that every one but the miners and drivers in this mine think they are privileged to ride and walk the slopes instead of the manways; I warn them to keep off this, and other dangerous slopes.

4—April 1, 1907, John Lilie, miner, was killed instantly by a fa of breast-slate in Union Mine, No. 2, of the New York Mining Co This accident was a very careless affair. His "butties" said th they warned him against going under the breast-slate, and told him t pull it down. This he did not do; hence the above result.

FATAL ACCIDENT IN FIRE CLAY MINE.

1—Aug. 6, 1907, Louis Martin was killed instantly by a delaye blast, in No. 6 mine of the Union Mining Co. This mine is one of group of mines that supplies the Union Mining Company with clay Martin and those working with him had prepared five charges o dynamite as is their custom, before going out. When they fire, the go straight home. On this occasion Martin went up the heading, t stop any one, who might be going out while the blasts were goin off. He, it is supposed, thought that all five blasts had gone off; and in passing, he went to take a look, with the effect that one blast, delayed, went off, and hit him full in the face, killing him instantly.

Table of Fatal Accidents, Tonnage, etc.

COVERING A PERIOD OF SEVENTEEN YEARS

Date	Coal Mined (Short tons)	Fatalities	Death Rate per 1,000 em	Dependants	Tons per Fatal acc't
1890	3,357,812		2.08		
1891	3,820,239		1.54		
1892	3,149,962		1.52		
1893	3,716,041		1.23		
1894	3,501,488		1.69		
1895	3,915,585		2.30		
1896	4,143,936		1.50		
1897	4,442,128		1.17		
1898	4,674,884		.89		
1899	4,807,396		1.08		
1900	3,923,249	7	1.33		560,474
1901	5,113,127	12	2.23	26	426,094
1902	5,271,609	11	1.98	47	479,237
1903	4,846,165	12	2.20	32	403,847
1904	4,790,459	10	1.67	18	479,046
1905	5,118,739	13	2.09	36	398,600
1906	5,491,294	7	1.13	34	784,471

Average number tons mined per fatal accident, 1900—1906, 504,538

Table of Inspections

McMullen Bros	Barrelsville No. 1	4
Cumberland Basin Coal Co.	Nos. 1 and 2	3
Georges Creek Bald Knob Coal Co.	Nos. 1 and 2	0
Midland Mining Co	Trimble Mine	3
Midland Mining Co	Enterprise Mine	6
New York Mining Co	Union No. 2	6
Union Mining Co	Union No. 1	4
Consolidation Coal Co	Ocean No. 1	25
Consolidation Coal Co	Ocean No. 2, Tyson	3
Consolidation Coal Co	Ocean No. 3, Hoffman	12
Consolidation Coal Co	Ocean No. 3½, Eckhart	6
Consolidation Coal Co	Vale Summit, Astor Mine	5
Consolidation Coal Co	Ocean No. 7, Klondyke	19
Consolidation Coal Co	Ocean No. 8, Big Vein, Tyson	10
Consolidation Coal Co	Ocean No. 9, Tyson	5
H. & W. A. Hutchins Coal Co	Borden Mine	7
Piedmont & Georges Creek Coal Co.	Washington No. 1	6
Piedmont & Georges Creek Coal Co.	Washington No. 2	8
Piedmont & Georges Creek Coal Co.	Washington No. 3	6
Piedmont & Georges Creek Coal Co.	Wash. No. 3, Brown's Mine	6
Georges Creek Coal & Iron Co.	Mine No. 9	6
Georges Creek Coal & Iron Co.	Mine No. 10	5
Georges Creek Coal & Iron Co.	Mine No. 12	6
Georges Creek Coal & Iron Co.	Mine No. 13	3
Georges Creek Coal & Iron Co.	Pine Hill	5
Georges Creek Coal & Iron Co.	Engineside	6
Georges Creek Coal & Iron Co.	Tyson No. 16	5
Wachovia Coal Co	Montell Mine	7
Barton & G. C. Valley Coal Co.	Carlos Mine	6
Bowery Coal Co	Bowery Mine	6
Braddock Coal Co	Pine City Mine	0
New Central Coal Co	Koontz Mine	6
New Central Coal Co	Tyson	5
Coromandel Coal Co	Big Vein Mine	5
Maryland Coal Co	Appleton Mine	6
Maryland Coal Co	New Detmold	5
Maryland Coal Co	Tyson No. 1	3
American Coal Co	Jackson Mine, Tyson, Big Vein and Waynesburg	6
Piedmont Mining Co	Moscow No. 1	5
Moscow & Georges Creek Mining Co.	Moscow Nos. 1 and 2	5
Chapman Coal Mining Co	Nos. 1 and 2	7
American Coal Co	Caledonia	6
Potomac Mining Co	Potomac Mine	6
Frostburg Coal Co	Ginseng	2
Phoenix & Georges Creek Coal Co.	Eckhart & Phoenix	6
Cumberland & GeorgesCreek Coal Co	Penn Colliery	5

Table of Inspectinos [Continued]

Piedmont Cumberland Coal Co	Brown's (This mine was absorbed by the Piedmont & Georges Creek Coal Co., Oct. 1906.	2
Davis Coal & Coke Co	Buxton Mine	6
McCullough's	Fuel Coal Mine	2
Hansell's	Coal and Fuel Mine	2
Morrison's Land Co	Morrison Mine	5
Total inspections for Allegany county		294

INSPECTIONS IN GARRETT COUNYT.

G. C. Pattison Coal Co	Bloomington Mine	4
Three Forks Coal Co	Three Forks No.1	2
Monroe Coal Mining Co	Elk Run Nos. 1 and 2	5
Potomac Valley Coal Co	Darwin Mine	5
Blaine Mining Co	Dill No. 2	5
Garrett Co. Coal & Mining Co	Dodson No. 1	5
Upper Potomac Mining Co	Big Seven	5
Stoyer Run Coal Co	Stoyer Run Nos. 1 and 2	5
Beechwood Cumberland Coal Co	Mine No. 1	3
Nethkin's	Bayard Mine	1
Garrett Coal Co	Kendall Mine	2
Total inspections for Garrett county		42

INSPECTIONS IN THE FIRE CLAY MINES.

Union Mining Co	Fire Clay Mines	4
Big Savage Fire Clay Co	Mine	3
Savage Mt. Fire Brick Co	Fire Clay Mine	3
Total visits to fire clay mines		10
Ten days spent waiting on Grand Jury		
Miscellaneous visits		7
Total visits of inspection during the year		353

In the matter of inspections made during the year, I want to say: that with the increasing developments in both Allegany and Garrett counties, it is almost impossible to keep within the provisions of the mining law relating to inspections. The law requires that the inspector visit each mine at least once every two months, that is, six visits per year. This he cannot do with any justice to himself; and attend to his office work. There are about 50 coal mines in Allegany county, about 15 in Garrett, and 3 fire clay mines. It will thus be seen that there is more than one for each day. In one case it requires three days to make a visit to a small mine employing about ten to fifteen workmen. The law should be changed to make it every three months; or there should be an assistant inspector appointed. I believe that four trips per year would produce as good results as six; and would lessen the burden greatly for the inspector.

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Descriptions of the Mines

M'MULLEN BROS.

PARTRIDGE RUN MINE

D. F. McMullen, General Manager. James Barrett, Foreman.

The Partridge Mine of the McMullen Brothers Coal Co., has not done as much work from May 1906 to May 1907 as usual. The entire mine has been in better shape than at any time before, but they have encountered a fault that has given them more or less trouble.

The seam worked here is the Brookville, and is a coal of very high quality, when free of trouble. Located at Barrellsville on the main line of the Cumberland and Pennsylvania Railroad, about seven miles from Cumberland; it is about the closest operation to the eastern market in the country. The mine is a drift with a long tramroad and gravity plane to transport the coal to the railroad.

This company contemplates the opening of the Clarion or Parker seam, and the Lower Kittanning or Davis six foot, in the near future. Their property contains a large area of these two very valuable coals.

CUMBERLAND BASIN COAL CO.

David Williamson, General Manager. Robert Blyth, Foreman.

The Cumberland Basin Coal Co., has changed hands and the corporation now owning it, though operating under the same name, is sure to make it in time one of the large producing companies in Western Maryland. They have already gone to work and generally renovated the place; painted the buildings that were up, building new ones, and improving the property both inside and outside the mines. The mines here have been greatly improved since these people have taken charge. A new air shaft and furnace have been built, haulage roads have been made higher with more room made on the sides, and roads and drainage greatly improved. The company owns the branch road leading to the mines from the Cumberland and Pennsylvania Railroad, and operates a good sized locomotive for the purpose of hauling the coal from these and their Wellersburg mines. It is a standard guage road.

The seams worked here are the Brookville and Clarion, the latter being probably the best coal for smithing purposes in the region at this place.

GEORGES CREEK BALD KNOB COAL CO.

This company has been idle all of the year and part of the previous year. The enormous outlay of money and seeming disregard of expense has placed this company in the hands of receivers, and what might have been a profitable operation has turned out to be a considerable waste of money. It is to be hoped that some one will work this property, as it can be made with a proper management a source of profit to the owners, and the locality in which it is located.

This operation is located near Mt. Savage, and ships on a branch road of the Wellersburg branch. The means of conveyance to the railroad is by a long incline plane and a long tramroad over which a locomotive hauls the coal.

MIDLAND MINING COMPANY.

TRIMBLE MINE

W. A. Somerville, General Superintendent. Frank Stohl, Foreman.

The Trimble mine of the Midland Mining Co. is located near Morantown, and ships over the Cumberland and Pennsylvania Railroad. It is in the Big Vein, or Pittsburg seam, but on the extreme eastern outcrop, and as a consequence is in a more or less troubled state. The last opening made at this operation shows up much better than any of the previous openings, the coal being higher and of better quality. The general condition is much better than in previous years. This is about the average condition during the year.

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake at the mouth	5,240	10	524
Outlet at old opening	5,730		

ENTERPRISE MINE

W. A. Somerville, General Superintendent.
John S. Askey, Superintendent and Foreman.

On the old Miller branch of the Cumberland and Pennsylvania Railroad the Enterprise mine of the Midland Mining Co. is located. This operation is in the Pittsburg seam or Big Vein, and is on the East side of what was once Ocean No. 1.

Much of this coal lies to the dip and with water, and during certain times in the year some "black damp" or "carbonic acid gas" makes it rather difficult mining. The company is at present mining mostly their own coal which was previously owned by the McCullough heirs of Frostburg. They are recovering much more coal here than any one believed possible, and will work for many years to come.

The ventilation is generally good in the upper or Sharp heading, this heading being connected with the old Tom Brown shaft on the Consolidation Coal Company's property. In the summer time they are usually unable to work the lower or dip workings, because of the "black damp" pushed from the old work of Ocean No. 1 by the fan at that place. Because of the cut-up character and the many air holes about this operation it is impracticable to get the necessary air readings. The roads and drainage at this mine are only fair.

NEW YORK MINING COMPANY.

UNION NO. 2

Henry Shriver, Superintendent. William Hamilton, As'st. Supt.
John Sullivan, Foreman. John Hannon, Sub-Foreman.

Union No. 2 of the New York Mining Company is the third largest operation in the State, in point of output and number of men employed.

The mine is located near the eastern outcrop of the Pittsburg seam or Big Vein, and is a part of that valuable coal seam. The outcroppings of this mine are the last seen of the Pittsburg seam in the North Eastern range of the Appalachian Mountains. The coal as a consequence is in a highly disturbed condition, often splitting into two seams as it nears the outcrop. Throughout most of the mine, there is a heavy shale parting that makes mining here for both men and company rather difficult. The miners have much dead work to do in handling this shale, for they are only paid something when it is extraordinary thick, and the company in order to keep the product marketable have a large force of men on the tipples to keep the coal clean; this they must do or they would be unable to sell the coal, though it is about as good as the best in the region when placed on the railroad cars for shipment.

It is surely true that the coal at this operation cannot be as cheaply mined as at most of the mines working the Pittsburg seam or Big Vein. The advance work is drawing to a close in this mine, but it will take much longer to retreat than it did to advance. There is at this writing upwards of two million tons to be mined, and if carefully gone after much more may be gotten.

The haulage system here continues to give satisfaction, and all things considered I think it the safest and best haulage in the region. It is an electric third rail haulage that has been described at length in my previous report, and for this mine it is ideal. I have spoken in previous years about the blasting of coal out of the solid in this mine. I can only reiterate what I have previously said, and that is that solid shooting should not be done by miners here or elsewhere. It is true that not all miners, even here, blast out of the solid; but some of them do; I believe there is much improvement along this line at this operation recently.

The roads and drainage have always been a source of commendation at this mine, particularly when the difficulties to be overcome are considered.

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the fan rightside	15,675	86	182
Outlet at 2nd and 3rd rights	6,750	38	178
Intake to 4th right	6,240	15	416
Outlet of 7th right	7,200	13	554
Outlet of 9th right, slant	9,100	62	147
Outlet of 10th right	3,600	10	360
Outlet of 4th and 9th lefts, leftside	2,680	25	107
Outlet of 7th left side	5,130	10	513
Outlet of 6th left side	8,640	6	1,440
Intake to 5th left	3,320	40	83
Outlet of 4th left	7,140	14	510
Outlet of 3rd left	8,620	19	454
Outlet of 2nd left	8,400	40	210
Outlet of 1st left	12,180	22	508
Intake to short headina	7,200	19	359
Return to fan left side	48,480	264	184

This inspection is about an average one, and shows that the mine is very well ventilated, with the exception of the fifth left. I sometimes find this heading up to and beyond the requirements of the mining law; but as I have said before it extends away in a spur by itself, and is correspondingly hard to ventilate.

Union No. 1

Henry Shriver, Superintendent — John Sullivan, Foreman

Union No. 1 of the New York Mining Company is the mine located on the Withers property that was being made ready for shipping coal as stated in my last report. This mine is in the famous George's Creek Big Vein or Pittsburg seam, and promises to be one of the coal producing mines in the near future. It is situated on the west bank of Jenning's Run, and just above the town of Allegany. The coal is shipped over a branch road to the Cumberland & Pennsylvania railroad. The company could have reached the main line of the Cumberland & Pennsylvania railroad by incline plane, but in order to prepare for the large output that will eventually come from this mine, they brought the side track up to the mine leaving room for good dump height. It is said there is about seven hundred acres of Big Vein on this property, about four hundred of Tyson, and about two hundred and fifty acres of the Waynesburg or Koontz seam. This means a large increase in this company's shipments in the future. I saw four openings made in the Waynesburg and they all faced up over four feet of clean coal on the outcrop. This looks very encouraging for this section of the region, and it is to be hoped that the strong corporation operating here will develop these valuable coals in the up-to-date manner so necessary to economic mining.

It is intended to install the same kind of electric haulage here that is at Union No. 2. There has been a large fan of the Crawford McCrimmon make, placed here to ventilate this mine, and if the proper attention is given to cut-throughs and bratticing, there will never be any trouble about the ventilation.

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the fan	29,570	40	739
Outlet at the two openings	31,640		

TYSON No. 1

Henry Shriver, Superintendent. John Sullivan, Foreman.

The Tyson or Sewickley seam, is again being pushed at the opening just above Union No. 2 of the New York Mining Co. This coal, while not quite so high as some other points in the region, is very free of faults and very uniform in height. This can be made one of the most profitable operations in the State, if it is properly developed and equipped.

In some instances there may be more or less risk in going to great expense to make modern plants for our Tyson seam, because of the small local faults encountered here and there; but, in most cases these faults can be overcome by the proper grit and push that is such a necessary asset in coal mining today. The first equipment necessary at this mine is a good ventilating fan.

UNION MINING COMPANY.

UNION MINE

Henry Shriver, Superintendent. James Aldon, Foreman.

This mine is in about the same shape as reported last year, the only difference being that it is a little more contracted. It is still conceded to be one of the most desirable places in which to work. The relations existing. generally between the company, the management, and the workmen being good. This company have recently acquired a large tract of the Consolidation Coal Co.'s property adjoining this mine, and it is intended to develope it from the old New Hope slope. This will make Union Mine one of the last to be exhausted in the Big Vein, in this region. They are located at Borden, and ship over the Cumberland & Pennsylvania Railroad. This inspection shows the average condition of the ventilation during the year.

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the fan	25,650	115	223
Intake to first right	4,300	41	105
Intake to all work on plane	5,040	24	210
Intake to straight heading	5,670	16	354
Intake to No. 1 slant	11,300	14	807
Outlet at various points in the mine.			

H. & W. A. HITCHINS COAL CO.

BORDEN MINE

J. S. Brophy, Superintendent. John Malloy, Foreman.

It is gratifying to note that this company almost doubled their shipments of the preceding year. The Borden Mine is one of the many that is operating in coal that was thought to be worked out, and the money spent in recovering this coal is a great benefit to the communities in which it is done.

The heading I spoke of in my last report has been completed, and is a very decided improvement on the outside tramroad over which the coal was formerly hauled. The cost of this and other work of this character has made it a slow process in getting returns for the money spent. It is true no company or combination of men will invest their money here or elsewhere without expecting to get a fair return for their investment; but it shows commendable grit and enterprise to undertake a proposition that the general opinion believed to be unprofitable. It is to be hoped those aiding the community by creating labor, where it was believed impossible, will lose nothing by the process.

The ventilation here has been better than in any of the previous years of this mine's existence, the company doing everything in their power to aid the only means practicable at this operation, natural ventilation.

The Borden Mine is located at Borden and ships over the Cumberland and Pennsylvania railroad.

CONSOLIDATION COAL COMPANY

OCEAN NO. 1

H. V. Hesse, General Superintendent.

A. E. Reppert, Ass't. Superintendent. W. H. R. Thomas, Foreman.

The mines of the Consolidation Coal Company in the Pittsburg seam or Big Vein all begin as Ocean, and are numbered from 1 up to the highest operated. I do not known how this custom was established, except that the name Ocean, which is of Welsh extraction, seems to have for its origin, greatness or extent, as some of the first settlers here were Welsh it is probable it was from them the name originated. The use made of the word by the Welsh seems to slightly differ from others. The word with them is considered a great source—the middle—the abyss, or a great deep, and is allied in orthography to force, or forcing out. At any rate, whatever the origin of the word, they are named Ocean, and as such we must deal with them. The subject this time is Ocean No. 1.

It is in the Georges Creek Big Vein, and is located at the town of Ocean, near Midland, on the east bank of the Georges Creek. It ships over the Cumberland and Pennsylvania railroad, and is one of the oldest mines in the region, and will be one of the last to be worked out.

There is a large supposedly worked out territory around this mine, and much of it will be again gone over, and it may be that a large percentage of what is remaining will be recovered. With the methods of minng changed somewhat for the better, and plenty of room for improvement yet, it will result in getting a much higher percentage of coal than had been formerly gotten at this operation.

Ocean No. 1, like all the the large mines of the Consolidation Coal Company is a slope, though the original Ocean No. 1 was a drift. The haulage here is still a source of considerable friction, and always will be until they get adequate power. The present system of com-

pressed air motor haulage is a good system of haulage, but it is overtaxed, and any method of haulage that is overdone will give them the same annoyance. Another fruitful source of trouble with the haulage is the condition of the roads. Roads should be kept properly drained and cleaned. If this is not done in a big mine like this with its long hauls and more or less coal falling off the cars, soon results, if not constantly attended to in a condition that makes the cost of hauling look high. Good roads seems to be the cry all over the State at present, and nowhere are they needed more than in the coal mine.
These should all be of stone, brick or concrete. This seems expensive at first, but in the end would save money for the company.

The manway has been made a first-class road way now for the miners to travel, and if some work is done on it occasionally, in the spots that may get bad, it will always be a source of satisfaction to everyone interested.

This is an average inspection during the year.

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the fan	132,800	458	290
Intake to new lye	3,240	15	216
Intake to old lye	3,360	20	168
Intake to straight sump	2,527	18	140
Intake to 2nd left	2,320	12	·193
Outlet of 7th right, straight slope	3,420	26	132
Outlet of 8th right, straight slope	7,695	45	171
Outlet of 9th right, straight slope	3,440	25	138
Intake to 10th and 11th slope	3,465	22	157
Outlet of straight heading, dip	10,125	19	553
Outlet of Hawkin's dip	7,880	15	525
Intake to wet heading, dip	5,040	7	720
Intake to Welshes slant, across sea	3,520	21	168
Intake to Miller's across sea	4,600	27	170
Intake to Carney's, across sea	5,320	28	190
Intake to 8th right, across sea	6,000	21	286
Intake to 9th right across sea	5,250	15	350
Intake to 10th and 11th right, across sea	2,570	23	112
Intake to Loar's, across sea	7,240	21	345

There are outlets at many points adjoining this mine.

OCEAN NO. 3. OR HOFFMAN

William Sleeman, Foreman.

Hoffman Mine, or Ocean No. 3, of the Consolidation Coal Co. is located at the small town of Hoffman, near Eckhart, and ships over the Eckhart branch of the Cumberland and Pennsylvania Railroad. The water ditch or drainage tunnel, over two miles in length, spoken of in my last report, was completed in the summer of 1906, and the water turned in. It has proved to be the greatest economic project this company has undertaken in years, and has relieved the strain on the question of standing bodies of water, by which much of this mine is surrounded. The Borden Mining Co's. shaft mine that has been abandoned many years is presumed to be filled with water, and much of Hoffman being lower than the workings in this mine, it has been a constant source of apprehension on the part of all parties connected with mining in this vicinity. While the danger from this supposed large standing body of water is not entirely eliminated; yet, the fact that the tunnel is through, and capable of running a large amount of water, relieves the situation immensely. If proper precautions are continued as they have been in the past, this large amount of water can be let off gradually, and without probable danger to anyone.

For the reason that this mine is the lowest in the Georges Creek Basin, the question of drainage here has always been a serious one. Pumps were in most headings in the mine, and a large pumping station maintained at great cost, at what is known as the New Shaft. This pumping station has been spoken of in previous reports.

The ventilation at this mine has been improved somewhat during the year. In about the same ratio that improvement is apparent everywhere. During the year the shift work has continued, though in a lesser extent than in the previous years; and, before another report is made, the mine will be in such shape that most of this kind of work will be abolished. There has not been as much recklessness in riding up and down this long and dangerous slope as noted in my last report. The manway has been put in fairly good condition, and with the co-operation of the company, most of the workmen now travel out that way. The new mine still continues to mine large quantities of good coal that was abandoned, and will do so for many years to come.

The haulage question is a serious one here; but before this report is printed, this question will be in part solved by the opening of a mine on the Vale Summit side of this abandoned coal.

It is gratifying to see the spirit manifested by all the companies in going after this character of coal. It is true, that when they do, the reason for so doing maybe entirely selfish; but, in results to the communities where this is going on, any thoughtful person knows how much they are benefited by it. Coal is one of the products that has a very small percentage of its value in its original state. It is the labor employed in marketing it that gives it most of its value; therefor, the more labor cost is paid in mining this abandoned coal, (and no one will claim that it can be mined as cheaply as solid coal,) the more money is circulated wherein this labor is performed.

I have sometimes been forced to call the attention of the company to the matter of cut-throughs in the new mine. I trust this may not be necessary in the future. This indicates about the condition of the new mine:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the air holes	18,640	65	286
Outlet at the mouth	19,370		
This indicates the condition of the slope.			
Intake from the fan	56,560	200	482
Intake to 8th right, Klondyke	3,140	20	157
Intake to 6th and 7th rights	5,670	30	184
Intake to 4th left	1,800	4	450
Intake to 3rd left	2,520	8	412
Intake to 1st left	3,300	8	319
Intake to Scobies Heading, straight	3,100	14	221
Intake to Tippen's 1st cross	7,500	26	288
Intake to 2nd cross	4,720	30	157
Intake to 1st cross, northside	4,240	12	353
Intake to 2nd cross	7,250	18	403
Outlets at many points around this mine.			

This is the first year there has been any coal mined by the use of machines at this operation. Their use has not been very satisfactory, especially in rooms, the roof not being as good as at some of the other operations under this company, where they have met with more success.

CONSOLIDATION COAL COMPANY.

Ocean No. 3½, or Eckhart

James Weston, Foreman.

In April of 1906 Eckhart started to ship coal. It was not intended to begin shipments so soon; but owing to the coal trade, and that the output had temporarily lessened at some of their other mines, they began shipments with a daily output of about 500 tons. This they have about maintained up to the present time, and while there is at times a temporary shortage in this output, yet, if much of the necessary dead work or laboring work is done by the company this amount may be maintained for a long time.

The ventilation has been generally good; but it is one of the many mines that most of the closest coal had been worked out, and this causes much loss of ventilation that cannot very well be avoided;

though they are very much alive to the necessity of having good ventilation, because they know that only in that way can they recover the large portions of this valuable coal that I hope and believe they will recover.

The drainage at this mine is also a problem that will not be satisfactorily solved until they connect with the main drainage tunnel at Hoffman.

Eckhart is a slope, and is located in the heart of the town of Eckhart and ships over the Eckhart branch of the Cumberland and Pennsylvania Railroad. This place is the terminus of the road bearing its name.

This is an average inspection during the year:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the fan	32,720	100	327
Outlet of Price's heading	10,260	44	233
Intake to Winner's heading	3,980	38	105
Intake to dip heading	2,500	9	279
Outlet at the slope	29,700		

The mining here is all done by pick and the places are generally well driven and safely timbered.

ASTOR MINE

John Leake, Foreman.

Preparations are being made to begin operations at the old Astor slope mine at Vale Summit. There is a large territory of good coal that can be reached from this place, and if the proper methods are pursued, it will become another of the large producing operations of this company.

It is located near Vale Summit and it is intended to haul the output for the present at least, over an outside tramroad to Hoffman dump by means of a locomotive. Much of the coal in Hoffman New Mine will also come this way, becaues it will run to openings made on the Vale Summit side of this mine, and thereby save a long up-hill drag of the loaded cars by horse power.

This will help the old town of Vale Summit, and will probably move it from the rut it has been in for the last twenty-five or thirty years.

OCEAN NO. 7, OR KLONDYKE

Jonathan Jenkins, Foreman

Ocean No. 7, the banner mine of this Company, and of the State, perhaps of the whole country, still maintains its high standard as to output. Last year there was mined in this mine 1,024,859 tons; of this amount 293,928 tons was mined by machines. This year the mine's output was 1,076,117 tons; 51,258 tons more than in 1905. Of the total tonnage, 232,234 tons were mined by machines, a net loss in machine-mined coal of 61,964 tons. The Company is to be congratulated on the high standard of efficiency displayed in the management of this mine, for while it is not perfect, and many things could be improved about it, yet taking everything into consideration it is probably one of the best managed mines upon such stupendous scale in the country. Such a large enterprise is easier criticised than administered; and it may be the critics would find it less difficult to point out the slips of the management than to rectify them. The mine is located near the town of Lord, about two and one-half miles north of Midland. The coal is shipped over the Carlos branch of the Cumberland & Pennsylvania R. R., a siding or branch line which takes the coal from this mine and from Carlos mines. The manways have been much improved here during the year, although there is still room for improvement, and I trust the improvements will be made. The ventilation has, as usual, been good, yet with all that has been done there remain places here and there where the carbonic acid gas, or "black damp" interferes with the working places. There is more coal mined here by machines than at any other operation in the State, in fact more than all other operations in the State taken together. There is need of change in the mining laws, relative to coal mined by the use of machines. I have always contended, and have always tried to have about three times as much air in a heading where machines are being used, as in those operated by pick. I know this ratio should be maintained to obtain anything like a healthful condition in the mines, if temperature and other conditions are equal. The dangerous practice of riding the slopes is still being kept up at this mine, not so much by the miners as the laborers and the under bosses of various kinds. There is no need for this, and it should be stopped at once. If any man's duties demand his presence in any of these slopes, it is enough that he take this necessary risk, without going there merely to save a walk. If they must go out during the day, it would be a better example to set the men, for the bosses to start a few minutes sooner and walk out. There has been a good ambulance provided for this mine, something that was needed. The large direct-connected haulage engine placed here during the year has proved a great aid in maintaining the large output. It is the largest stationary haulage engine in the State, and should be sufficient to do all the hauling of the coal from these slopes until they are done. This is an average inspection during the year.

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the fan	149,980	611	245
Outlet of 2nd left straight, new slope	5,600	12	467
Intake to 2nd left 3rd cross	4,390	25	176
Intake to 2nd left, 1st cross	3,640	32	114
Intake to 2nd eight straight	2,940	18	163
Intake to 3rd left straight	2,580	22	117
Intake to 3rd left, 1st cross	1,880	10	188
Intake to 3rd left, 3rd cross	3,280	22	149
Intake to 3rd left, 8th straight	1,550	22	70
Intake to 4th left, 8th straight	3,000	26	115
Intake to 4th left, 1st cross	2,890	30	96
Intake to 4th right, 1st cross	3,840	33	116
Outlet of 5th right, straight slope	4,160	28	149
Intake to 5th right, 6th cross,	2,660	23	116
Intake to 2nd right, straight, middle slope.	5,900	60	98
Intake to 3rd right, straight, middle slope.	4,500	16	281
Intake to 3rd right, 1st cross, middle slope	3,600	35	103
Intake to 4th right, 1st cross, middle slope	3,400	35	97
Intake to 4th left, straight, middle slope	3,840	30	129
Intake to 2d. right, 1st cross, old slope	5,900	20	295
Intake to 3rd right, 1st cross, old slope	2,205	21	105
Intake to 4th right, 1st cross, old slope	8,400	36	233
Intake from the small fan, new mine	64,890	203	320
Intake to straight heading, new mine	7,040	48	146
Intake to all on top of plane, new mine	9,585	40	239
Intake to back scuttle, new mine	8,750	15	583
Intake to 1st left, new slope	11,055	80	138
Outlets too numerous to measure.			

OCEAN NO. 8

Thomas McFarland, Foreman.

Ocean No. 8, is located at Midland, on the west bank of Georges Creek, and ships over the Cumberland & Pennsylvania R. R. This mine is the most convenient one for Midland people to work in, but only a limited number of miners can be used. Number 8 proper is rapidly being worked out, and if it were not for the fact that they are going after much of the coal that was partially lost during the "squeeze" in Q X section of Ocean No. 1, No. 8 would very soon be done. There has been considerable coal taken out of "Cullen's heading" during the year, with prospects good for the recovery of very much more. "Cullen's" is one of the headings that was thought to be lost. There is a fair chance that in some of the other headings of this squeezed section of Ocean No. 1 there may yet turn out to be a large quantity of coal that can be saved. The ventilation in the Big Vein has been good during the year.

This is an average inspection during the year.

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the Fan	25,110	86	302
Intake to 1st left, short heading	3,890	36	108
Intake to 2nd left	3,225	20	161
Outlet near the mouth	20,655		

Drainage is rather poor here.

TYSON NO. 8

Thomas McFarland, Foreman.

The No. 8 Tyson has not been very much of a success. Opening in a part of the east side of the syncline, the main heading has steadily gone to the dip. The coal has also been very irregular, never very high, and sometimes cut out entirely. The troubles from this source and from water have been legion. Generally speaking, the ventilation is good, although sometimes when they try to penetrate a fault without carrying their air-course with them, they have a serious time in bringing up their ventilation. It is up-hill work, and sometimes it looks as if the opening had been made in the wrong place. They have a separate dump and scales at Tyson Mine, but use the same side track on which to load their railroad cars. The coal is lowered to the dump by an incilne plane. It is a desirable place to work, where it is dry and free of faults.

This was the condition of the ventilation on a visit during the year.

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the Fan	14,400	23	626
Intake to 1st right	6,170	12	514
Intake to main heading and second right	4,680	10	460
Outlet near the mouth	14,580		

PUMPING SHAFT, TYSON AND WAYNESBURG

This place is now mining some coal from the "Tyson" and some from the "Waynesburg" or Koontz seam. The coal is used exclusively for boiler use at the pumping station, and while there is no pumping going on here, they operate an air compressor that furnishes power to run the pumps, motors and machines in the mine. The opening made into the Waynesburg coal does not show up very high, but it is said to be a first-class steaming coal, and the Company is developing it, in the hope of shipping it some day.

TYSON NO. 9

P. J. Kenny, Foreman.

Situated at the upper end of the "Y" and shipping on the main line of the Cumberland & Pennsylvania R. R., Ocean No. 9 is one of the oldest openings in the Tyson coal seam in the northern end of the Georges Creek basin. This operation has three openings, but at present only two of them are being worked. The opening is lettered, as A, B, and C. C opening encountered serious local faults, and has been temporarily stopped. B opening had some local troubles, but they are beginning to get away from them, with prospects looking better. The locomotives on the C. & P. R. R. use all the output from A opening. The drainage here has been a serious drawback; the disturbed condition of the strata making it rolling and consequently hard to properly drain.

This is an average inspection during the year.

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake to 1st right, B opening	1,800	11	164
Inside cut in 2d. right, B opening	1,000	3	333
Intake to main heading	2,515	11	229
Intake to 1st right, A opening	3,200	4	800
Intake to main heading	7,200	2	3,600
Outlet of 1st cross in 1st left	6,000	14	429
Return to Fan	12,800	55	233

PIEDMONT & GEORGES CREEK COAL CO.

WASHINGTON NO. 1

Martin Condry, Superintendent P. H. Brown, Foreman

Washington No. 1 of the Piedmont & Georges Creek Coal Co. is in the Georges Creek Big Vein, and is located in Washington, a small village lying between Eckhart and Hoffman. The mine has been most of the time in much better shape as to ventilaton, than in previous years. This is due to the fan being put in here, as noted in my last report.

There is but one heading that has not been up to the standard during the year, and that the farthest from the fan. With the great amount of waste between the fan and this heading it is impossible to do any more than is being done, and the workmen generally realizing this, do the best they can.

There have been some improvements in the haulage here during the year. Lyes or side tracks have been made inside to shorten the long heavy drag on the horses from the working faces to the outside, the grades here being all against the load. This, and other improvements has increased the tonnage at Washington No. 1 about 10,000 tons during the year, a very substantial increase.

They ship over the Eckhart Branch of the Cumberland & Pennsylvania Railroad, and the car supply is usually good.

The intake and outlet of the fan follows:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the fan	13,000	40	325
Outlet near the mouth	12,960		

WASHINGTON NO. 2

Phillip Brown, Superintendent W. E. Brown, Foreman

The Washington No. 2 mine of the Piedmont and Georges Creek Coal Co. is located at Eckhart and ships over the Eckhart branch of the Cumberland and Pennsylvania railroad. This is the best operation in the Tyson in the upper end of the region, and is rapidly taking front rank in point of output and equipment with the best of them in any seam. During the year an electric haulage plant has been installed, and the output materially increased, being over 30,000 tons more than the preceding year. The expense necessary to put electric haulage in mines working seams of the size of this one, would make the average man consider well before doing it. In some instances rock had to be blasted up as much as seventeen feet, and in others nearly as much blowing down in order to lower the grade for a proper mine haulage. The result has been highly gratifying to the management; where they had been hard pushed to ship 300 tons per day, they can now ship from 600 to 700 tons, while I predict a still further increase.

The getting of another bore hole from the surface down through the

Tyson into the Big Vein below has drained a large territory that was formerly under water. A six inch hole, such as is put down here, running constantly is worth much to this company.

The ventilation here is generally good, but with the low seam, and much blasting being done, miners oftentimes have some smoke to contend with.

An average inspection follows:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the fan	38,640	90	427
Intake to 5th and 6th south, new mine	2,100	5	420
Intake to 14th south, old mine	3,150	9	350
Intake to 16th south, old mine	2,160	4	540
Intake to 17th south, old mine	1,950	8	244
Intake to 18th and 19th south, old mine	2,320	12	193
Intake from 1st to 2nd left, old mine	4,080	6	680
Intake from 9th to 10th north, old mine	1,200	6	200
Outlet of 7th and 8th north, old mine	1,920	10	192
Outlet of 3rd and 5th north, old mine	2,475	11	225
Outlet of 1st north, old mine	2,580	7	369
Outlets from combined openings	37,320		

WASHINGTON NO. 3

M. P. Fahey, Superintendent John Fahey, Foreman.

Located on the west bank of Georges Creek, near Westernport, Washington No. 3 of the Piedmont and Georges Creek Coal Co., is one of the large operations in the Davis 6 foot or Lower Kittanning. The largest individual increase under this company has been at this mine. In 1905 the output was 108,619 tons, while in 1906, the output was 186,332 tons—an increase of 77,713 tons. This increased tonnage was largely due to the previous preparations being made and the up-to-date methods employed. The mine is generally in fair condition; but there is so much "solid shooting" done here, that there is usually a large amount of smoke, no matter what the volumn of air.

The marsh gas, or carburetted hydrogen noted in my previous report as being noticed in small quantities here, is still present, though not just in the same locality. The first right is the only place where this gas is generating now, and it is very carefully watched. I again repeat that companies and workmen cannot exercise too much care in dealing with this highly explosive gas, and I trust that I have impressed every man connected with it of the great danger from any carelessness on the part of any one that might result at any time in a catastrophe, similar to what is occurring with horrifying frequency in some of the states adjoining. With all parties using due caution, let us hope that we may escape the calamities that result from taking any chances with a condition that is always dangerous, be the amount of gas generating ever so small. The hauling here is still done by mules, and the increasing need of some mechanical haulage is every day more apparent.

This is an average inspection during the year:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the fan	29,640	136	217
Outlet of 1st right	5,320	18	295
Outlet of 1½ right	3,140	10	314
Outlet of 2nd right	3,000	10	300
Outlet of 3rd right	2,800	15	187
Intake to 5th left	6,520	63	103
Outlet at the mouth	28,800		

WASHINGTON NO. 4

M. P. Fahey, Superintendent — John Fahey, Foreman.

This mine was bought by the Piedmont and Georges Creek Coal Co. from the Piedmont and Cumberland Coal Company in November 1906, and has since been operated as Washington No. 4 of the Piedmont and Georges Creek Coal Co. It was known formerly as Hampshire or Brown's mine.

It is in the Davis 6 foot or Lower Kittanning and is on the east bank of Georges Creek, and ships over the Cumberland and Pennsylvania railroad. The mine has a good fan, and is very well ventilated; though when first opened the careless work done then in robbing close around the mouth, regardless of the future of the mine, has resulted in some difficulty in maintaining proper air courses.

In the left side of this mine is some carburetted hydrogen, or marsh gas, and as there is some work done in close proximity to this gas, all hands engaged therein need to be careful, taking no chances whatever.

This is an inspection some time after being acquired by the Piedmont and Georges Creek Coal Company:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the fan	25,440	56	454
Intake to first left	3,200	8	400
Outlet of second right	6,700	20	335
Outlet of third right	4,400	18	244
Outlet near the mouth	23,370		

BARTON & GEORGES CREEK VALLEY COAL CO.

CARLOS MINES

Howard Hitchins, Superintendent.
Harry C. Hitchins and Robert Duncan, Foremen.

Carlos is a mining town located at the terminus of the Carlos branch of the Cumberland and Pennsylvania railroad. Over this branch, the output of the Carlos mines is shipped.

The relations existing between employer and employe at this mine is excellent, and it seems to have been brought about by an effort to treat the workmen with the consideration they deserve. The Hill mine has been worked out during the year, and despite this fact the output has been some larger than the preceding year. The output here is all by pick, and the quality of coal mined is said to rank very high.

The pumps mentioned in my last report are not used any more. The Consolidation Coal Co. having driven a water-way from Ocean No. 1 into Conrad Slant of Carlos, and tapped the water in two places and are running it from there to Ocean No. 1 to Hoffman, and into the new drainage tunnel. This has been a good thing for this company, and in the end will be good for the Consolidation Coal Co.; as it will avoid the danger from standing water that would be sure to accumulate if they had to depend upon pumps entirely to remove it.

This is an average inspection during the year:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the fan	25,160	120	251
Intake to second right	7,280	40	132
Intake to Conrad's slant	4,620	35	182
Outlet of Ten heading	3,900	30	130
Outlet at mouth of slope	29,160		

BOWERY COAL CO.

BOWERY MINE

Robert Griffith, Superintendent and Foreman.

The Bowery Coal Co. is operating in the Big Vein or Pittsburg seam, and in coal that was thought to be abandoned, and from which they are getting a good quality of coal with prospects good for some time. There is no more interesting work than going into the old work of other times and other men and extracting the means of living for many people in the communities where it is being done. This is what the Bowery Coal Company is doing, and will continue to do for some time to come. They are now working in the old Blaen Avon coal, and later they will go down the Bowery slope where they expect to recover more than at any other point they have worked.

This mine has shipped about four times as much this year as last; have made eighteen new cars; improved the dump; repaired the tramway and built a new fuel dump for local use. This trade here is a good business in itself.

The ventilation is by natural means. The method of driving holes out to the surface where they are near the crop line, being found the best and cheapest way to ventilate this character of work. They ship over a branch road of the Cumberland and Pennsylvania railroad that is known as the Midlothian branch.

In this kind of mine air readings would not indicate its condition, because of the many holes and falls between the place where the readings were taken and the working places.

This company is contemplating a large development of the Tyson near where they are now operating the Big Vein. It is to be hoped that they may succeed in this undertaking.

WACHOVIA COAL COMPANY.

MONTELL MINE

Charles E. Davis, Superintendent.

Tony Lewis, Foreman.

Montell mine of the Wachovia Coal Co. is located near Clarysville, and ships over the Georges Creek & Cumberland railroad. The coal seam worked here is the Lower Kittanning or Davis 6 foot. It is the only operation in the 6 foot in the upper end of the Georges Creek Basin. It is on the eastern slope of the syncline near Dan's Mountain, where the coal measures all crop out. The mine has done much better than in any of the former years of its existence, having an output over six times greater than in the preceding year.

It is gratifying to note this improvement, becase of the prejudice existing in the minds of many against anything in the shape of coal except Georges Creek Big Vein.

Machines of the puncher type are used in this mine, and about eighty-five per cent of the output is mined by this method.

The ventilation here is inadequate with the present facilities, particularly because of the use of machines, and the consequent dust and smoke from cutting and blasting. With the means at hand, the management do well to keep the condition as good as I usually find it.

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the Fan	9,370	30	312
Intake to the return air-way	6,180		

GEORGES CREEK BASIN COAL CO.

(Was Braddock Run Coal Co.)

PINE CITY MINE

W. H. Williams, Superintendent and Foreman.

The Braddock Run Coal Co. that operates the mine known as Pine City Mine, near Clarysville, has been superseded by the Georges Creek Basin Coal Co. I understand this plant will be put in operation shortly, and thus a means of livelihood furnished for a considerable number of men.

This is a very good coal seam worked here, and if properly prepared for market, there is no doubt of it being a paying proposition.

The manner of reaching the railroad by a bucket conveyor is some handicap. This conveyor I have described at length in one of my former reports; but, even that can be overcome, and I think the outlook here justifies it.

This Company shipped no coal during 1906.

GEORGES CREEK COAL & IRON CO.

ENGINESIDE

R. L. Somerville, General Superintendent.
John F. Somerville, Assistant Superintendent.
R. T. Spear, Foreman.

The Georges Creek Coal & Iron Company is one of the pioneer shippers of Georges Creek Big Vein, and will be shipping this valuable coal when many of the others will be done.

Engineside is located near Lonaconing, on the west bank of Georges Creek. The ventilation at times, in isolated spots has not been so good, though the management went to work and applied any remedies they could think of, or was suggested to them.

They are surrounded by so much old work that had been abandoned

so many years, and their fan being an exhaust entirely, the accumulations of carbonic acid gas, or black damp, drawn out of the old work is more than the fan is able at all times to carry off.

This is one of the best mines in which to work in the region; but, like most others of its kind, the competition to stay in it is so great, that men often have to work too many together, because of this. The following is an average inspection during the year:

Where Measured	**Cubic ft. Air per m.**	**No. of Empl'yes**	**Air per Man**
Intake near the mouth	**23,040**	**120**	**192**
Intake to Cutter heading	**3,240**	**24**	**1·5**
Intake to second right	**1,920**	**21**	**96**
Intake to Fleming heading	**3,160**	**28**	**113**
Intake to Peebles heading	**3,600**	**19**	**189**
Intake to Upper Heading	**2,620**	**16**	**164**
Return to the Fan	**26,855**		

PINE HILL MINE, OR NO. 3

John Boyd, Foreman.

Pine Hill kept going up to February 20, 1907, when it worked its last day. This mine was in good condition all the year, and up to its being worked out was one of the best in the region in which to work.

The management kept most of the men at work up to a short time before the mine was finished. They ship over the Cumberland & Pennsylvania Railroad.

This inspection indicates the condition of the ventilation:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake at the air shaft	14,970	20	748
Outlet near the mouth	15,210		

NOS. 9 AND 10

John Boyd, Foreman

No. 9, or Columbia is located near Gilmore, and is in the Big Vein. They ship over the Georges Creek & Cumberland Railroad.

This mine is opened on a part of the Old Midland Mine of the Hampshire & Baltimore Coal Company, one of the pioneer coal companies now defunct.

It was necessary to acquire the Midland property in order to reach some coal of their own that lay beyond. The coal here, like the Midland, is exceptionally hard; though of first-class quality. It is rapidly being worked out, and ere this report is printed, Columbia will probably be done.

This indicates the condition as to ventilation:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Outlet near the mouth	15,630	15	1,042

No. 10 is under the same management, and is on the other side of the same hill going around the crop-line after the coal left in by the old Midland Mine. This operation uses the same dump as Columbia and transports the coal down an incline plane. It is about worked out; in some places they found the coal taken out almost to the grass roots. If this kind of policy had been pursued by all the operators, and had it been pursued everywhere in this mine, many of them would be still working big vein that are now out of the business.

MINE No. 12

John Boyd, Foreman.

When the last report was written, No. 12 was advancing. When this one is written it is coming back. No. 12 is located at Gilmore on the east side of Georges Creek, and ships over the Georges Creek & Cumberland Railroad. It is in the Georges Creek Big Vein and is a small patch standing out by itself. An incline plane is used to convey the cars from the mine to the dump, and they also have an incline plane on the inside, the grades being from 4 to 5 per cent in the mine. This company have been very successful with these inside haulage planes, and I think they are by far the most economic method of haulage, where the grades will permit of it, that I see.

The ventilation is at all times good, air-holes being out on the right and left sides of the mine.

The following will indicate the amount of air that comes from both sides:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Outlet near the mouth	20,640	60	344

MINE NO. 13

John Boyd, Foreman.

No. 13 is one that is added to the list of mines of this company and it is in the Georges Creek Big Vein Coal. It is located on the east side of Georges Creek at Lonaconing, and ships over the Georges Creek and Cumberland Railroad.

This mine is opened in a strip of coal belonging to this company adjoining the Coromandel Coal Company's Mine, Big Vein. While at no time can there be any great force of men employed; yet, the amount of coal they are likely to get here will keep the number of men they can employ working for quite a few years. The work is considered very desirable here, because of its convenience, and the general good conditons existing. They shipped but 665 tons in 1906; but, will show a very large increase in 1907.

The ventilation is by natural means, and generally good.

TYSON NOS. 16 AND 17

Douglas Somerville, Foreman.

Tyson No. 16 is working, while No. 17 is temporarily idle. This company have opened the Tyson directly above Engineside, and I have described at some length in my previous report the large and expensive plant established here. It now promises to bring some returns for the large outlay of money that has been expended, having encountered some faults here, which I hope and believe they are now about through. They are at present mining a considerable amount of coal, having an electric haulage installed they are able to handle very much more, and will do so, I am sure, in the near future. The mining of this coal is no experiment in this region, and in the future this and the other small seams is something that every thinking person on Georges Creek knows must be developed in order to supply the ever increasing population of this part of the State.

The ventilation is generally good, an exhaust fan having been put in during the year.

This inspection is an average one:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake at the mouth	14,420	30	481
Intake to left side of mine	3,600	13	277
Outlet of right side	2,280	8	285
Return to fan	15,360		

COROMANDEL COAL CO.

BIG VEIN MINE

Duncan Sinclair, Superintendent. William Thompson, Foreman.

This operation has mined about 28,000 tons of good Big Vein coal during the year, that was thought would never be gone after.

This mine is situated at Lonaconing on the east side of Georges Creek and ships over the Georges Creek and Cumberland Railroad. They have laid 3,750 feet of tramroad up to openings that were made where they expect to get a large amount of good marketable coal. It is also intended to go up the other side of the same hill—in fact they have started the work now and before this report is printed, they will be shipping coal from that side.

The ventilation has been generally good here, more attention having been paid to it than formerly. This is another of the mines where air readings would not prove anything.

NEW CENTRAL COAL CO.

KOONTZ NO. 1

Duncan Sinclair, Superintendent. William Thompson, Foreman.

The continued success with which they are getting out the coal at this operation is something they deserve credit for, considering the difficulties. There is no place in the region mining Big Vein under more trying circumstances than here, and yet they are continuing year after year to maintain a very nice output.

The ventilation is most of the time good and considering the conditions that I have spoken of before, it is about all that could be done.

They ship over the Georges Creek and Cumberland Railroad, and work about every working day in the year, the car supply always being good. They are making preparations to go up around the outcrop on the left side of the mine, where they expect to have many years work.

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the fan	42,760	50	855
Outlet at the mouth	44,250		

The miners do not get as much air as the fan readings would indicate.

KOONTZ NO. 2, TYSON

William Thompson, Foreman.

Koontz Tyson is still one of the best coal seams in the upper end of the region, and if given the attention it merits it could be made one of the large, producing and good paying mines.

There is entirely too much work under this company for one man to personally look after, and when there is no responsible head on the ground, many things that require immediate attention, and would perhaps save much time and money, are allowed to go unattended.

The ventilation is fairly good; the same thing I spoke of in my last report is to some extent true yet; that is, the pillaring of the big vein greatly disturbs the Tyson when it is being operated directly over the pillaring, as is being done here.

This is an average inspection during the year:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the fan	12,270	20	613
Outlet of straight heading	4,620	2	2,310
Outlet of first right	2,740	10	274
Outlet of second right	1,520	4	380
Outlet of third right	1,210	2	605
Outlet at the mouth	13,640		

MARYLAND COAL CO.

APPLETON MINE

Frank E. Brackett, Superintendent. William Dodds, Foreman.

The Appleton Mine of the Maryland Coal Company is in the Big Vein and is located near Lonaconing on the west side of Georges Creek. They ship over the Georges Creek and Cumberland railroad.

This mine is one of the most desirable in the region in which to work; and if they had observed the cut-through law, as they are generally doing now, it would have been ideal.

The miners all get the same number of tons per year; that is, all those who work steadily, and it is a great source of satisfaction to every one concerned I have spoken of this subject before; but it is one that too much cannot be said on, and if some of the other companies would follow the same course, the feeling of hostility that is ever apparent, would, I am sure, in part disappear.

Inside planes are used here for main haulage with horses to do the gathering on side headings, and it has always seemed to work smoothly. A locomotive hauls the coal on a tramroad from the mine to the dump. The ventilation is generally good, being furnished by an exhaust fan.

This is an average inspection for the year:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Combined intakes of manway and haulage...	42,740	97	441
Intake to all right side.....................	7,820	30	261
Intake to second left	5,300	22	241
Intake to 1st left and Monkey heading... ..	7,820	25	313
Return to the fan...........	49,634		

TYSON NO. 1

William Dodds, Foreman. Christopher Dodds, Ass't Foreman.

Tyson No. 1 is proving to be a good operation in the Tyson. It is being developed along up-to-date lines, and no doubt, in time will produce a large output. It is not being pushed with the vigor that it would seem to merit but, the reason for that of course, I am unable to give.

During the year it was idle much of the time and other people working the same coal running nearly full time. I hope for the sake of Lonaconing and vicinity that this apathy will disappear and Tyson No. 1 will take its place where it belongs, among the large producing mines.

They have a short plane up to the mine which is about 100 feet above the Big Vein, and dump their output upon the same tipple as Appleton. The fan spoken of in my last report is working, and this is what it shows:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the fan.......................	13,170	12	1,097
Outlet at the mouth.......................	13,320		

NEW DETMOLD MINE

Hubert Worgan, Foreman.

The Patton mines output was mostly taken out New Detmold mine, the Patton being worked out: what is known as New Detmold is al that remains.

The coal is shipped on the Georges Creek and Cumberland Railroad and the mine is located near Lonaconing on the west side of Georges Creek. Since the Patton mine is done they do not operate the large fan but have a small fan at New Detmold that keeps the mine in good condition as to ventilation.

The management here are experiencing considerable trouble with drainage, having not made ample provision for draining the flat work they knew they were coming to.

This mine does not work very steady.

The following from the fan indicates the condition:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the fan........................	9,740	30	325
Outlets are in old work			

AMERICAN COAL COMPANY.

JACKSON MINES

John T. Dobbie, Superintendent. Robert Gunning, Foreman.

The Jackson mines in the big vein are being worked out slowly, but surely. It is true they are still advancing around "Coon Hollow" up Charlestown, and will probably open another opening up there; but on the other side they are about done.

The condition in the big vein is generally good. the ventilation being all that could be desired. The hauling is still done by the locomotive on the tramroad, and the gathering done by the horses and mules at the mines.

There has been a considerable change in the officials during the year; new blood being generally infused into the local management. What effect this will have in the operations here remains to be seen.

No readings are required in the Big Vein, as every place is working close to the surface to which holes are made for the purpose of ventilation.

They are located on the west side of Georges Creek near Lonaconing, and ship on the Georges Creek and Cumberland Railroad.

TYSON NOS. 1 AND 2

Robert Gunning, Foreman.

At this place the Tyson differs somewhat from any other in the Georges Creek basin. It has improved materially in No. 1 mine during the year, the management having cut through a serious fault in their first right heading finding very good coal on the other side, in fact more like the Tyson elsewhere, than in any other part of the mine.

The ventilation has been greatly improved during the year. An air shaft was sunk, doors hung, brattices built, air courses brought up to the headings and cut-throughs made with the effect that the mine is very well ventilated.

WAYNESBURG OR KOONTZ NOS. 1 AND 2

Robert Gunning, Foreman.

The Waynesburg or Koontz seam, lying about 125 feet above the Tyson in the Dunkard formation is being operated, and it is odd as being the only place in the State working this coal.

Mines. No. 1 and 2 are located directly above the stationary or No. 5 in the big vein. This coal, while somewhat troubled, is said to be very high in quality. The No. 1 mine is mostly pillar work, while No. 2 is all advance work.

The ventilation is always good in No. 1; but the same cannot be said always of No. 2. It is true they are bothered greatly with water, being so close to the surface. With but a limited area of this coal to mine, it can hardly be expected that they would put in expensive ventilating apparatus.

This is the condition as to ventilation:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake at the mouth	5,780	20	289
Outlet at the air-hole	6,140		

They lower their output by means of an incline plane to the Big Vein tramroad below, and from there the locomotive hauls it to the dump. They have been driving a prospect drift in the Tyson close to this plane. It is to be hoped that it may prove good for this company have a large area of Tyson coal.

CALEDONIA MINES

William Russell, Foreman.

The Caledonia Mines of the American Coal Company are located at Barton and are the only mines of this company shipping over the Cumberland and Pennsylvania Railroad. The mines in the Big Vein are a series of openings like this company's Jackson Mines, with a tramroad on which the hauling is done by a locomotive to the head of the incline plane from where they are lowered to the dump. This plane is the best in the region from every standpoint. It is uniform in grade, good tracks and rollers always kept in order. The plane runner who is an expert in his business starts a trip out and it does not vary in speed at any time until it stops at the weigh scales at the bottom of the plane.

The Big Vein has reached the limit of going ahead and the coming back will not take as long as it did to advance.

Ventilation is always fairly good, considering that it is all by natural means.

There are four openings in the Tyson with planes leading up to them from the big vein tramroad. The Tyson seam here is from 5 to 7 feet high and is as good, if not better, than much of the big vein, and many of the miners like it better to work in.

The ventilation is generally good in the Tyson, though it is all by natural means. I have never visited these mines and been unable to get air readings.

These readings indicate the condition:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake to No. 1 opening	5,640	4	1,410
Outlet at No. 2 opening	6,970	30	232
Intake at mouth of No. 3 opening	4,060	20	203
Outlet at mouth of No. 3 opening	4,190		
Intake at mouth of No. 4 opening	6,720	16	420
Outlet at opening through hill	7,140		

PIEDMONT MINING CO.

PEKIN MINE

J. J. Dobbie, Superintendent. Charles Bowden, Foreman.

The Pekin Mine of the Piedmont Mining Company is located at Pekin, and ships over the Cumberland and Pennsylvania Railroad. They are working the big vein and are shipping as good coal as any in the region, and will work for many years to come. Already they have five openings and expect to make two or three more before the end of their advance work is reached. This year they have built 1,000 feet of tramroad and have made their fifth opening. The hauling is done by a locomotive on a tramroad skirting around the property; a plane is used to lower the output to the railroad below. Horses do the gathering at the various openings.

The ventilation is generally all that could be desired, the system of putting the air-holes out to the surface being practiced here with good results.

MOSCOW MINE

Charles Bowden, Foreman.

This mine located at Moscow is also in the Big Vein and ships over the Cumberland and Pennsylvania Railroad. It is, all things considered, one of the best mines in the region in which to work.

It adjoins the property of the American Coal Company and is reached by a long incline plane, and also a long tramroad.

The ventilation here has always been good in my time, after we got the system of putting the air-holes out to the surface going.

The coal is extra high and consequently extra dangerous roof; but generally the men, fully appreciating this, have been very careful in their timbering.

MOSCOW-GEORGES CREEK MINING CO.

MOSCOW NOS. 2 AND 3

E. R. Brennan, Superintendent and Foreman.

The Moscow-Georges Creek Coal Company still continues to mine big vein, and Barton Four-Foot at their operations near Barton. These mines are located on the west side of Georges Creek and ship over the Cumberland and Pennsylvania Railroad.

The big vein mined here is in the old Peekhill property and from present indications, they will have many years of work. It is true they will never be able to work a large force of men, because the work of recovering this coal is full of difficulties and it takes pluck and enterprise to push it.

The ventilation is generally fair, there being no great reason why they cannot get a plentiful supply of fresh air at any time by making air-holes out through the surface.

About 425 feet below the big vein they are working the Barton Four-Foot or Bakerstown coal and ship it on the same dump as the big vein. This is the farthest point this coal seam can be successfully drifted for up the creek. The mine, is a drift in character and is very flat, being about the center of the syncline. As a result, they are troubled some with water.

The ventilation here, as stated in my former reports, is not good and some sort of mechanical ventilation is absolutely needed. To depend on natural ventilation here, with the work as flat as it is giving very little chance for change in temperature, is out of the question; and, while very often the mine has but few men working in it, I think this due to its condition.

Moscow No. 1

Moscow No. 1 on the opposite side of Georges Creek has not been working during the year; though there is strong talk of its being started up and being vigorously pushed.

CHAPMAN COAL MINING COMPANY.

Swanton Mines

Edward Clark, Superintendent and Foreman.

The Swanton mines of the Chapman Coal Mining Company are located at Barton and ships over the Cumberland and Pennsylvania railroad. The coal seams mined here are the Tyson and Barton Four-Foot. The Tyson is the more important operaton, the coal being from 5 to 7 feet high and of good quality. They have gotten into line in the coal recovery business, and are recovering much coal that was thought to be worked out. I have seen pillar after pillar of the best kind of coal standing here, and rooms faced up in the solid and why they were stopped it would be very hard for anyone to satisfactorly explain.

The management here are somewhat careless about their roads and drainage, and while there are undoubted difficulties, because of the nearness to the surface of the coal; yet, the proper provisions for drainage are not made.

The ventilation is generally good, though, there is at times carelessness apparent in this respect.

Barton Four Foot

The Barton Four-Foot, in operation here, is like some other places where this important coal seam is being mined. Not enough attention paid to it; just letting it drift. This policy will eventually drift it out of the business. You visit the mine, you find perhaps the ventilation within the requirements of the law; but, in seams of this size and at this stage of its being mined, there should be two or three times the amount required in order to keep it clear of smoke. You find a few men working and they being permitted to blast as often as they please, and no effort being made to make them work under proper restrictions, where if the proper conditions prevailed, they could double their output. I am now speaking from an economic standpoint.

They ship over the same dump as the Tyson. The coal is of good quality and could be made a very successful operation.

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake at the mouth of Tyson..............	5,780	30	193
Outlet at air-hole, Tyson....................	6,170		
Intake from air-hole, Barton Four-foot.....	3,250	15	217
Outlet at the mouth, Barton Four-foot.....	4,760		

POTOMAC COAL COMPANY.

POTOMAC MINES NOS. 1, 2, 3 AND 4

Henry Shriver, Superintendent. P. H. Gallagher, Foreman.

This is operating the Barton Four-Foot or Bakerstown coal and ship over the Cumberland & Pennsylvania Railroad. It is situated near Barton and controlled by the second largest shippers in the State, the Black, Sheridan and Wilson Coal Co.

Shis mine is the most extensive operation in the Barton Four-Foot in the State, having four openings.

The haulage is done by mules and with the territory that is developed, it is beyond question that some kind of mechanical haulage would greatly reduce cost of mining.

The mine is generally in good condition as to ventilation and safety.

The drainage question is a source of much trouble here.

In opening these seams, it would look as if it were gone at as an experiment; doubtful of the success. As a result proper provision was not made for drainage and haulage. Roadways were not made wide enough; now they are going over much of this work. Had it been properly done in the first place, the matter would have been settled. They are now and have been for some time, making the required room and the difference is quite noticeable.

The management continue to improve conditions in every way, and they have no trouble in keeping a large force of men when they have work for them. A large fan furnishes ventilation and it is generally good. The following is an average inspection during the year:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the fan........................	32,120	70	459
Intake to 2 left, No. 1 opening...............	8,240	4	2,060
Intake to 3 left, ...	6,100	3	2,033
Outlet of 4 left, ...	4,500	3	1,500
Outlet of 6 left, ...	4,100	9	455
Outlet of 7 left, ...	3,000	7	429
Outlet of 8 left, ...	2,100	8	262
Outlet of 9 left, ...	1,640	12	137
Intake to No. 3 opening....................	6,600	7	943
No reading in No. 4 opening		8	
Outlet at mouth, No. 1 opening.............	28,800		

THE FROSTBURG COAL CO.

GINSENG MINE

Thomas Mackey, Superintendent, resigned.
James McDonald appointed.

Ginseng mine of the Frostburg Coal Company is like it always has been to a more or less degree. The company will sometimes appear as if they were going to put the mine on a paying basis and then they shut down. There is something radically wrong with this company, either in its management or otherwise.

This mine, as I said before, can be made a paying proposition; provided some money is spent, and used in the manner in which it would do the most good. The coal is of good quality, a fair height, and reasonably easy of access. It would need some real live coal men to go at it, giving it a general cleaning up and overhauling of everything and apply up-to-date methods. This with the proper financial backing, would make the mine a paying one, instead of what it is today.

It has been idle most of the year.

It is located at Reynolds and ships on the Cumberland & Pennsylvania Railroad.

MORRISON LAND COMPANY.

William Harvey, Contractor.

This operation is in the same seam of coal as the Ginseng mine; namely, the Upper Freeport. It is claimed by some to be too hard to be mined by pick; but, the men here mine it, and I am informed by them, make a very comfortable living. This mine furnishes the fuel that generates the power at the power house of the Cumberland & Westernport Electric Railway at Reynolds and there does not seem to be any cause for complaint as to its efficiency; considering the manner in which its railway is run.

A decided improvement has been made here during the year. A small, high speed fan has been installed and the condition of the mine is immensely improved.

PHOENIX & GEORGES CREEK COAL MINING CO.

PHŒNIX MINE, BIG VEIN
ELKHART, BARTON FOUR FOOT

John Rankin, Superintendent. A. Davidson, Foreman.

The Phoenix mine operating in the big vein is located on the west side of Georges Creek, near Reynolds and ships over the Cumberland

& Pennsylvania Railroad. There is the usual method employed here in going after abandoned coal; by laying tramroads around the hills on both sides of the head of the plane and making openings along these tramroads.

The coal here is like many other places mining this vein of the highest quality; and it is to be hoped that they get much more than seems probable at this writing. The coal is hauled on the tramroads by horses and mules and lowered to the dump by two long planes.

The ventilation is good at all times, it being no trouble to procure a plentiful supply of fresh air.

The Barton Four-foot, working here, is also a very good operation. Some little trouble is experienced with water by the local dips that occur, as in all the coal measures; but all things considered it is among the good operations in this very important coal.

I have noticed some reckless acts by workmen at this mine in handling explosives and I trust the management will make every effort to make careless workmen have some respect for the lives of their co-laborers, if they have none for their own.

The ventilation here is generally good, though the mine will shortly become too extensive for the primitive and out-of-date method now in use. This is an average inspection of the Four-foot.

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake at the mouth of Barton Four-foot...	7,180	15	479
Outlet of 1st right..........	4,600	5	920
Outlet of 2nd right..........	3,620	8	452
Outlet of 3rd right..........	1,940	2	970
Return to the furnace..........	8,120		

CUMBERLAND-GEORGES CREEK COAL CO.

PENN MINE

Thomas S. Harris, Superintendent and Foreman.

This company has been pushing along in a very indifferent manner and will be until they apply the proper methods to their operation. They have one of the best looking propositions in the Barton Four-foot in the State and if they would ventilate it, and make some other needed repairs, they would have no trouble in increasing their output.

I trust that before this report is printed the company will see the error of their ways, and put the needed ventilating apparatus in. As a rule, I am unable to get air readings here.

The general condition of the mine has been considerably improved under the new management, and they hope to be able to impress on their company the need of still more. The company has a large acreage here, and some day it will be one of the big coal producers in the State.

PIEDMONT & CUMBERLAND COAL CO.

James McDonald, Superintendent.

This is the last time this company will appear in the reports of the Maryland mines; at least until they get other operations.

The Hampshire or Brown's mine they were working here they sold to the Piedmont and Georges Creek Coal Co., and it is now known as Washington No. 4, of that company. In another part of this report it is described under the head of Washington No. 4.

DAVIS COAL & COKE COMPANY

No. 17, or Buxton

O. Tibbets, Superintendent. Robert Grant, Foreman.

The Buxton mine of the Davis Coal & Coke Company is located near Bloomington and while the opening is in Allegany county much of the work done is in Garrett.

They ship on the Western Maryland Railroad and are working the Lower Kittanning or Davis six-foot.

This company have increased their shipments considerably over last year, and it is hoped they will continue to do so for many years to come.

They have started to penetrate a fault that was met with in the main heading, and it seems to be improving. It means much to this community, for there are many people having houses established here and dependent upon Buxton for a means of living.

The mine has been considerably improved during the year by the addition of a new and larger fan on the right side of the mine. This has made a decided betterment of the ventilation.

Roads and drainage have been considerably improved during the year.

This is an average inspection:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the fan, right side	37,800	144	264
Outlet of first right	8,500	38	224
Inside cut in second right	2,870	22	130
Outlet of Stump and Spangler headings	2,450	22	110
Outlet of Pollock and Ridge heading	5,000	14	357
Intake to 4th left	5,400	8	675
Outlet at the mouth	27,000		
Return to the fan left side	12,640		

# of Coal,

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Outlet of first right	8,500	33	224
Inside cut in second right	2,870	22	130
Outlet of Stump and Spangler headings	2,450	22	110
Outlet of Pollock and Ridge heading	5,000	14	357
Intake to 4th left	5,400	8	675
Outlet at the mouth	27,000		
Return to the fan left side	12,640		

Local Coal Mines

There are quite a number of mines that are mining coal on a small scale for domestic use. Time forbids the going into extensive description. I will begin the practice of just giving a list of those mining coal for home consumption, and the seam of coal in which they work. All the fuel mines reported here are in Allegany county.

The rollowing are the names and where they are working:

A Mr. Barnard is operating a fuel mine at Eckhart. It is in the Big Vein.

Hansel's fuel mine, back of Frostburg has been in operation for a long time. They are also in the big vein, adjoining old Frost mine.

McCullough & Rawlings is another enterprise of this kind in the big vein. They are working in the old Blaen Avon property.

The Frostburg Fuel Company have leased Tyson No. 2 from Consolidation Coal Company and are said to be doing a good business.

John Clise has an operation in the National Mine near Miller, that was worked out by Hitchins Bros., some years ago. He is supplying the most of Midland with coal for domestic use.

J. O. J. Green is in the local fuel business at Westernport, and is operating what was thought to be the Clarion or Parker Coal. He reports sales good and plenty of them.

A Mr. Miller is supplying much of Lonaconing with domestic coal. This is also the big vein.

A Mr. Anderson is working some of the Detmold crop coal. He also supplys part of the Lonaconing trade. It is big vein of high quality.

Garrett County Coal Mines

G. C. PATTISON COAL CO.

Carrell Pattison, Superintendent and Foreman.

The G. C. Pattison Coal Company are operating in the Lower Kittanning or Davis 6 ft., and in the Bakerstown or Barton Four-foot. The six-foot, they work more extensively than the Four-foot, largely because the difference in height. It is always easier to get labor in the six-foot than in a smaller seam.

The mines are located near Bloomington and load direct on the Baltimore & Ohio Railroad. The condition at the six-foot during the year have been very good, and the company has had a corresponding increase in tonnage.

The ventilation is furnished by a force fan and the old opening of the Brydon Mines serves as an outlet.

This is an average inspection during the year:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the fan	19,760	30	658
Intake to Monkey heading	6,900	14	493
Intake to Lower heading	5,280	8	660
Intake to Stony heading	3,640	6	607
Outlet at Brydon opening	20,570		

The operation in the Barton Four-foot has not been doing very much during the year. There is no good reason why this mine cannot be made a paying proposition. It is about the same as the Barton Four-foot everywhere, it being, to my notion, the most persistent of all coal seams.

The ventilation is only fair; there is hardly ever enough men to bring it under the provision of the mining law.

MONROE COAL MINING COMPANY.

ELK RUN MINE, NO. 1

G. C. McFarlane, Superintendent. H. B. Kight, Foreman.

Elk Run mine No. 1 is located at Barnum and ships on the Western Maryland Railroad. It is operated by the Monroe Coal Mining

Co., and is in the Lower Kittanning. It may be that there is only one of the Kittannings here present, this company having prospected considerably in their efforts to locate another of the Kittannings but, without result, so far.

This mine is generally in good condition; but it takes careful work to keep it so, for it is a considerable distance under the hill, and the capacity of the present fan is about reached.

The proposed improvements in the haulage, and, incidental in their air-course, mentioned in my last report, has helped matters greatly but the distance between the face working and the fan is steadily increasing; and as a direct result the efficiency of the fan is decreasing.

I know this company will put in what improvements are necessary.

The roads and drainage have been much improved during the year.

This is an average inspection:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the fan	26,800	50	536
Inside cut in 5th right	4,200	7	600
Inside cut in 6th right	4.125	7	589
Inside cut in 7th right	3,500	5	700
Inside cut in 8th right, main heading	3,325	6	554
Outlet of 8th left	2.625	6	437
Outlet of 7th left	2,440	7	348
Outlet of 6th left	3,200	4	800
Outlet of 5th left	2,100	2	1,050
Outlet near the mouth	18,040		
Another outlet at old air shaft.			

ELK RUN MINE NO. 3

L. B. Kight, Foreman.

The Barton Four-foot is directly above No. 1 mine and is reached by an incline plane; shipping over the same dump as No. 1. This coal still retains its uniformity, the mine keeping up its normal output. It is generally in good condition; improvements being made, as a rule, when they are needed. The ventilation is good since the installation of the fan and the pleasure that there is to every one more than compensates for the expense incurred.

This is an average inspection:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the fan	15,400	25	616
Inside cut in third left	2,310	7	330
Inside cut in fourth left	3,300	7	471
Intake to 4th and 5th rights	8,280	6	1,380
Outlet at the mouth	9,285		

Fourth right is part of the outlet as an air hole is out at the back of this heading.

This company have built nine new dwelling-houses on their property on the West Virginia side of the river.

THREE FORKS COAL MINING CO.

THREE FORKS MINE NO. 1

D. F. Beckman, Supt. J. H. Smith, Foreman.

Three Forks Coal Mining Company is a new operation in Garrett county, located near Chaffee on the main line of the Western Maryland Railroad. They did not ship any coal during 1906, but commenced shipping January 1907. Since that time and up to May 1907, they shipped about 4,000, a very good showing for a new plant and having the many draw-backs incident to a new operation.

The mine is in the lower Kittanning or Davis 6 ft., and is reached by a tramroad over two miles in length, from the dump to the bottom of an incline plane that leads up to the openings.

The coal is among the best in this section of the State. It is ideally located for opening, and some day when they are able to bring their railroad cars close to the mine, it will be one of the most extensive in Garrett county.

A locomotive hauls the cars from the dump to the bottom of the plane; the grade is rather heavy, being about four and a half per cent.

The company is showing the proper spirit, though they are but a short distance in, a fan is about completed, and it is to be hoped that they may meet with success in their undertaking when their first consideration seems to be a desire to have the best possible conditions in their mine. They are building a large number of dwelling houses, and I am informed, intend to build many more. This place looks to have a bright future.

POTOMAC VALLEY COAL CO.

DARWIN MINE

S. B. Brydon, Superintendent. David Johnson, Foreman.

This mine is in the Upper Freeport or Thomas coal and is located about one mile below Blaine; shipping over the Western Maryland Railroad. It is an extremely hard coal, the hardest coals in the Maryland coal measures.

Considerable improvement has been made here, since this company has taken charge of the property. Two new openings have been made, and a tramroad of 15,000 feet from the head of the plane to the openings. In these openings the best Freeport coal so far developed in the State, is found. There is one matter in this mine that I want to speak of, and that is, the solid shooting so prevalent here. As has been stated before, the coal is hard, the mine is well up on the hill; it is very dry; and with the incomplete combustion of the large blasts, the dust made from the same cause and the natural dryness of the mine produces a condition that I believe to be highly dangerous. The blasting of the coal out of the solid should not be permitted under any circumstances. If miners cannot make a living by preparing their coal, then they should get more per ton. If companies cannot pay more per ton, then it should stay in the hill until they can; rather than have a disaster such as is happening all about us.

This is an average inspection:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake at the mouth	10,640	30	355
Return to furnace, right side	4,800	14	343
Return to furnace, left side	6,000	8	750

This company say they will intsall a fan in the near future; though that will not eliminate the danger of which I speak.

BLAINE MINING COMPANY.

DILL, No. 2

S. B. Brydon, Superintendent. T. A. Fleming, Foreman.

The Blaine Mining Company is located at Dill about one mile up the river from Blaine, and ships over the Western Maryland Railroad. This mine, as I have stated before, is the best operation in the Lower Kittanning or Davis 6 foot and from many standpoints, the best mine in any seam in the State.

During the year they have been still pushing their heading work, with the end in view in the near future, of a largely increased tonage. I understand they expect to bring the railroad cars up close to the mine and thus do away with the long tramroad and much of the plane that is now in use. In addition to this, they intend installing an electric haulage plant that will be a great economic saving in hauling the coal in the mine. With the improvements completed, it will be no trouble for this operation to bring its tonnage up to 1200 to 1500 tons per day. The coal still maintains its general good qualities and all things considered it comes near being the ideal coal mine.

There are a couple of other outlets on the left side of the mine.

This is an average inspection:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the fan	44,680	60	745
Inside cut in 1st right	6,645	5	1,329
Inside cut in 4th right	16,060	5	3,212
Inside cut in 5th right	8,800	5	1,760
Inside cut in 7th right	5,475	4	1,369
Outlet of 8th right	5,040	6	840
Outlet of 9th right	4,620	7	660
Inside cut in 10th left	1,560	4	390
Outlet of 6th left	3,100	2	1,550
Intake to second left	10,080	13	775
Outlet at the mouth	31,520		

GARRETT COUNTY COAL & MINING COMPANY.

DODSON NOS. 1 AND 3

H. B. Douglas, Superintendent. (Resigned about first of year 1907.) G. C. McFarlane, appointed.

Martin Abernathy, Foreman. (Succeeded by H. B. Kight)

This company have shown a considerable amount of carelessness during the year. This may be in part due to the contemplated change in officials. Whatever it was due to, it should not be permitted to go on. The mine was always within the strict letter of the law, as to ventilation, but, with the amount of blasting that is done, they need to go farther than that. It is so easy to let a property run down and so hard to again get it up to a proper standard, that good mine officials will never allow this to occur. The present management have gone to work with a will, and when another report is issued, I believe there will be a different story to tell.

Dodson is mining the Lower Kittanning or Davis 6 foot.

The ventilation is by the overcast or split system, every heading getting its separate amount of fresh air This is the ideal system; but it must be given attention.

The hauling is done by stationary engine and tail rope on the main heading, and by horses and mules on the side headings right and left.

An incline plane lowers the coal to the dump, where they ship it on the Western Maryland Railroad.

This is an average inspection during the year:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the fan	45,830	80	573
Intake to 4th left	5,400	9	600
Intake to 5th left	5,200	14	371
Intake to 6th left and all above	1,840	16	115
Intake to 7th right	1,200	10	120
Intake to 6th right	2,420	12	202
Intake to 5th right	3,240	9	360
Outlet at the mouth	48,800		

The Upper Kittanning coal is opened here, and was operated for a time, but for some reason was stopped by the former management. This cooal at this point looks better than any coal seam in the State, outside of the big vein, and why it is not operated, I cannot see. I have spoken of this coal in a previous report.

UPPER POTOMAC COAL COMPANY.

UPPER POTOMAC MINE.

R. H. Hamill, Superintendent. Thomas Robinson, Foreman.

The Upper Potomac mine of the above named coal company is located at Hubbard on the line of the Western Maryland Railroad. They ship over this great coal carrying road and have increased their output considerable during the year; more than 10,000 tons over the preceeding year.

The coal seam worked is in the Lower Kittanning or Davis Six-foot and is reached by a long incline plane, from the head of which a tramroad leads to the mine. This company is one of the best in Garrett county from every point of view, always trying to work in harmony with their employes, and doing everything they can for their health and safety.

The ventilation, drainage and general condition of the mine is kept upon a high plane, and as a result they are increasing their shipments every year.

This is an average inspection:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake at the mouth..	18,640	50	373
Intake to 2nd and 3rd right..................	3,920	15	261
Inside cut in fourth right....................	3,310	15	221
Intake to 5th right......	1,840	7	263
Intake to 6th right..........................	1,575	3	525
Return to the fan.................	20,070		

STOYER RUN COAL COMPANY.

STOYER MINE No. 1.

Thomas Melvin, Superintendent and Foreman.

Stoyer Run Coal Company have for the present abandoned all other openings on their property and gone back to operate their No. 1 opening. The mine is located at Stoyer, a small town in Garrett county, and along the line of the Western Maryland Railroad.

This company have had an up-hill fight at this operation during my term of office. Much of this is due to themselves. They seem to have been honestly trying to improve their property, but instead of going at it in a business -like way and spending at once the necessary amount of money on new equipment, they have always been investing in second hand stuff, and but very scant with that. It is true they have local difficulties that are not general in this section of the State; but despite the protests of their friends they have continued this penny-wise and pound foolish policy; and when times become hard, they are unable to mine coal on a competitive basis; the result being that they must suspend until the coal market improves. They seem to listen to skates and adventurers instead of to the men whose whole ambition in life is to put the property on a sound, paying basis.

This is the average condition during the year:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake at the mouth	9,840	20	492
Return to the furnace	10,270		

BEECHWOOD-CUMBERLAND COAL CO.

Wilbert Shrout, Superintendent and Foreman.

The Beechwood-Cumberland Coal Company at their Glade Run Mine have been idle most of the year. This company's property is located at Glade Run, near Gorman and ships over the Western Maryland Railroad. I have made but few visits here during the year; they have been idle most of the time.

The operation is not very extensive, and is ventilated by a small furnace. It appears to neeed some life injected into it.

NETHKINS COAL & COKE CO.

C. C. Chenowith, Superintendent and Foreman.

The mine of the Nethkins Coal & Coke Company located at Bayard, have not started shipments, as yet, for reasons unknown to the writer. I think that a very successful operation could be made here.

The only work done during the year was some coal mined for local consumption in the town of Bayard. The conditions on my visits were always good.

PENN GARRETT COAL CO.

L. N. Van Sant, Superintendent.
Thomas H. Jones, Foreman; and later Superintendent.

This mine is located in the Upper Youghiogheny Basin at Kendall, near Friendsville and is at the extreme western part of the State. The Penn Garrett Coal Company is a newly organized corporation, and it is to be hoped they will succeed in developing the vast coal resources of this coal basin. The seam they have started to work in is the Lower Kittanning or Davis 6 foot, and they have an opening also in the Split 6.

On the occasion of my visits, the coal there did not show up very good, though that is nothing unusual in this seam and in this basin. It may be that further development will result in the much improved quality of coal from a commercial standpoint.

This company have spent a large amount of money outside in buildings, equipments, dwelling houses and a large boarding house; but not very much in or about the mine.

They ship over the Confluence & Oakland branch of the B. & O. Railroad. It is a hard place to reach, taking the greater part of three days going and coming; no matter how you go at it. I have tried it by driving and by railroad. On my last visit less than ten men were employed. The mine has been idle for some time.

The Fire Clay Mines

UNION MINING COMPANY.

Henry Shriver, Superintendent. James Yantz, Foreman.

The Union Mining Company's Fire Clay mines are located about four miles from the town of Mt. Savage, on Savage Mountain.

The output of this company fell off some during the year, but this was, no doubt, due to the preparation and development of new openings. This fire clay mining is the basis for the maintenance of a great portion of the people of Mt. Savage. There was one fatal accident occurred during the year which is fully described under the head of fatal accidents. It was a very sad and unfortunate accident, and one that may not occur again in one hundred years.

The general condition of the various mines has improved, the most dangerous of their mines, No. 5, being done.

The drainage is still the same problem here it always was and I suppose always will be, no matter what the grade, or how clean you keep your ditches. There is always a soft plastic-like condition. The labor here is mostly from the mountains and some of them are very skillful in timbering. I have seen them retimber places that a coal miner would not think of attempting. This is because they are accustomed to the work and are experts at fore-poling; something comparatively unknown in this region, until recently.

The workmen, while they do not make big wages, work nearly all the time, which in the end of the year brings their wage pretty close to the coal miners.

BIG SAVAGE FIRE BRICK COMPANY.

J. N. Benson, Superintendent. Edward Finzel Foreman.

Big Savage Fire Clay mines is located on Savage Mountain, about two and one half miles from Allegany, where their brick yard is.

This mine has been in very bad shape as to ventilation, but it is all right now, an air-hole having been made from the surface down to the clay, a distance of about eighty feet, mostly through an extremely hard sandstone. They are now producing a fine quality or as good clay as the best of the Mt. Savage products to be found anywhere. They have an especially thick seam of flint clay.

The hauling is done by a stationary engine, located at the mines, and operating with a rope over a plane-tramroad, about two and half miles in length. In the mine mules do the hauling.

They mine what coal is needed about the operation from a coal seam adjacent to the fire clay and send some down to the brick yard at Allegany. This plant means much to the locality around Allegany. The brick yard employing a great many men and boys at reasonably steady work. They ship over the Cumberland & Pennsylvania Railroad.

THE SAVAGE MOUNTAIN FIRE BRICK CO.

C. H. Shuckhart, Superintendent and Foreman.

The Savage Mountain Fire Brick Company still continues to do business in the same way as in former years. The capacity of their brick yard plant at Frostburg is about the same as it has been for a number of years, while at any time they could increase their output at their mines, yet they are now mining all the clay they require. The mine is in the same good condition as stated in my last report and the management seem to realize the economy of keeping it so.

Last year the output fell slightly below the normal, for the reason no doubt, as stated in my last report, that of abandoning old work and beginning new, but this year they have come up to their normal amount. The mine is located in Garrett county, about three miles northwest of Frostburg. From the mine to the dump the clay is hauled over a tramroad of about 1 mile in length, by horses. From the dump it is transported down the National Pike by large wagons to their brick yard, at Bowery street, Frostburg.

Statistics of the Fire Clay Mining Industry in Maryland.

Name of Company	Mine	Employees					Days Worked	Tons Mined	Fatal Accidents	Non-Fatal Accidents
		Miners	Drivers	Inside Laborers	Outside Laborers	Total				
Union Mining Company	No. 6, 7 and slope	54	10	15	50	149	282	51,895	1	None
Savage Mt. Fire Brick Co.	Mine No. 5	11	1		5	17	300	10,000	None	None
Big Savage Fire Brick Co.	Mine No. 1	12	2	1	4	19	250	9,500	None	None
Totals		77	13	16	59	165	832	71,395	1	

The statistics for fire clay mining during the year show a decrease of nearly 7,000 tons as compared with the preceding year. This decrease is altogether in the Union Mining Co.'s output.

The laborers and drivers are still in excess of the miners; just about in the same proportion as they were last year.

Union Mining Company have done considerable development during the year, and that, no doubt, accounts for much of the decrease in output and increase in laborers.

This industry has great possibilities in this State. The clay can be located anywhere that the coal measures outcrop, and that is pretty good evidence that there is a large area of it. It lies below all the coal seams that have any commercial value in the State.

Previous to my term of office there was no inspection of the clay mining industry in Maryland. During the three inspection years, 1904, 1905 and 1906 the fatal accidents, per thousand employees, were as follows: 1904, 5.35; 1905, .00; 1906, 6.06; average for the three years, 3.80.